This printed version of the Schedule of Classes is current as of 1/27/20 9:43 AM.

AASP African American Studies Winter 2020

AASP100 **Introduction to African American Studies**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

WB11	Jason Nichols	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

AASP202 **Black Culture in the United States**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

WB11	Robert Choflet	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

AASP211 **Get Out: The Sunken Place of Race Relations in the Post-Racial Era**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit		General Education: DSHS, DVUP, SCIS

Credit only granted for: AASP298G or AASP211. Formerly: AASP298G.

Prevailing thought suggests that we live in an era that is post-racial, particularly after the election of Barack Obama. Media often serves to drive our assessment of where our nation stands on issues like race, gender and sexuality. This course uses the film Get Out to delve into the production, evolution and significance of race in present day America. The course will engage multiple forms of media to investigate life in "Post-Racial" America, including but not limited to the role of stereotypes, interracial relationships, police-community relations, etc.

WB11	Jonathan England	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

AASP498R **Special Topics in Black Culture; Race and Sports**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

WB11	Jonathan England	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

AAST Asian American Studies Winter 2020

AAST398L Asian Americans in Film

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHU, DVUP

Cross-listed with: AMST328W. Credit only granted for: AAST398L or AMST328W.

This course explores how Asian Americans have historically been represented in the U.S. by Hollywood, and in turn, how independent and Hollywood Asian American filmmakers have represented themselves. It covers the history of racial, gendered, and sexualized representations of Asian Americans in Hollywood, as well as Asian American filmic responses within and outside Hollywood. It also introduces how four basic tools offilm analysis mise-en-scene, cinematography, editing and sound work together to create meaning in moving images. It examines how these elements are put together in three different types of films by Asian American filmmakers: narrative, documentary, and experimental. How films function in society to circulate ideas that reproduce and challenge stereotypes about Asian Americans.

WB11	Terry Park	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

AMSC Applied Mathematics & Scientific Computation Winter 2020

AMSC698A Advanced Topics in Applied Mathematics

Credits: 1-4 Grading Method: Regular, Audit

Contact department for information to register for this course.

AMSC762 Data Analysis Project

Credits: 1 Grading Method: Regular

Restriction: Permission of CMNS-Applied Mathematics department; and permission of instructor.

This course cannot be used to meet any of the Applied Statistics Area's seminar requirements. Offered yearly, required of and limited to MS non-thesis and doctoral students in Applied Statistics Area, for whom the resulting projects serve as a Qualifying Exam component. After 5-6 lectures or presentations on components of successful data analyses and write-ups, 3-4 sessions will discuss previous student project submissions. The culminating project, to be completed in a two week period between semesters, is an analysis and written report of one of three project choices made available each year to represent a spectrum of realistic applied statistical problems.

0101	Konstantina Trivisa	Seats (Total: 10)
	Contact instructor or department for details.	

AMSC899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

AMST American Studies Winter 2020

AMST101 **Introduction American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO, D General Education: DSHU, DVUP

Credit only granted for: AMST101 or AMST201. Formerly: AMST201.

Introduces students to the interdisciplinary field of American Studies by examining concepts such as culture, identity, cultural practices, and globalization, as well as theories underlying these concepts. Engages key themes, especially constructions of difference and identity, cultures of everyday life, and America and the world.

WB11	Mark Lockwood	Seats (Total: 15)
	Class time/details on ELMs	ONLINE
WB12	Yvonne Bramble	Seats (Total: 15)
	Class time/details on ELMs	ONLINE
WB13	Zachary Johnson	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

Click here for descriptions of all AMST winter courses.

AMST203 **Popular Culture in America**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HO	General Education: DSHU, DVUP

An introduction to American popular culture, its historical development, and its role as a reflection of and influence on our culture and society.

An introduction to American popular culture, its historical development, and its role as a reflection of and influence onour culture and society. We will also examine historical and contemporary celebrity culture from various critical theoretical perspectives.

WB11	Brienne Adams Class time/details on ELMs	Seats (Total: 20) ONLINE
WB12	Jacqueline Partida Class time/details on ELMs	Seats (Total: 20) ONLINE

AMST205 **Material Aspects of American Life**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HA	General Education: DSHU, DVUP

Historical survey of American material culture. Ways of describing and interpreting accumulated material evidence (e.g., buildings, town plans) introduced by stressing relationship between artifact and culture.

WB11	Shoji Sanders Class time/details on ELMs	Seats (Total: 20) ONLINE

AMST328W **Asian Americans in Film**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit		General Education: DSHU, DVUP

Cross-listed with: AAST398L. Credit only granted for: AAST398L or AMST328W.

Cross-listed with AAST398L. Credit only granted for AAST398L or AMST328 W. This course explores how Asian Americans have historically been represented in the U.S. by Hollywood, and in turn, how independent an d Hollywood Asian American filmmakers have represented themselves. It covers the history of racial, gendered, and sexualized representation s of Asian Americans in Hollywood, as well as Asian American filmic responses within and outside Hollywood. It also introduces how four basic tools offilm analysis mise-en-scene, cinematography, editing an d sound work together to create meaning in moving images. It examines h ow these elements are put together in three different types of films by Asian American filmmakers: narrative, documentary, and experimental. Ho films function in society to circulate ideas that reproduce and challenge stereotypes about Asian Americans.

WB11	Terry Park	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

AMST498P **Special Topics in American Studies; Race and Nation in U.S. Cinema**

Credits: 3 Grading Method: Regular

Topics of special interest.

WB11	Robert Chester	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

AMST799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

0105	Psyche Williams-Forson	Seats (Total: 5)
	Contact instructor or department for details.	

ANSC Animal Science Winter 2020

ANSC386 **Experiential Learning**

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of AGNR-Animal & Avian Sciences department. Restriction: Junior standing or higher.

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	
0118	Christine Hakenkamp	Seats (Total: 10)
	Contact instructor or department for details.	

ANSC399 **Special Problems in Animal Science**

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Work assignments are designed to be proportional to the amount of credit. Students are expected to develop an abstract, fact sheet, manuscript, oral presentation, poster, webpage, journal-log, or other scholarly product associated with their study and/or project.

Contact department for information to register for this course.

ANSC497 **Animal Biotechnology Recombinant DNA Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC327; or students who have taken courses with comparable content may contact the department. Recommended: ANSC437 and ANSC435.

An advanced course offering hands-on experience in performing recombinant DNA experiments. Current molecular biology techniques used for cloning genes, analyzing the gene products, and modifying the genes of animals will be performed. Techniques include isolation of DNA, use of restriction enzymes; cloning procedures, PCR analysis, and Southern hybridizations. Lecture material focuses on interpretation of results generated in the laboratory.

0101	Lisa Taneyhill	Seats (Total: 10)
	MTuWThF 9:00am - 5:00pm	ANS 0108

ANSC688G **Special Topics; Animal Biotechnology Recombinant DNA Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

0101	Lisa Taneyhill	Seats (Total: 10)
	MTuWThF 9:00am - 5:00pm	ANS 0108

ANSC899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ANTH Anthropology Winter 2020

ANTH222 **Introduction to Ecological and Evolutionary Anthropology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: LL General Education: DSNL, DVUP

Credit only granted for: ANTH220 or ANTH222.

An introduction to the evolution of human physiology and human behavior, the relationship between hominid and non-hominid primates, and the study of relationships between a population of humans and their biophysical environment.

Students must pay a $40.00 lab materials fee.

HY11	Zev Cossin MWF 9:00am - 12:15pm Class time/details on ELMs TuTh 10:00am - 3:00pm	Seats (Total: 20) JMZ 2206 ONLINE WDS 0124C	 Lab
HY12	Zev Cossin MWF 9:00am - 12:15pm Class time/details on ELMs WF 1:00pm - 6:00pm	Seats (Total: 20) JMZ 2206 ONLINE WDS 0124C	 Lab

ANTH260 **Introduction to Sociocultural Anthropology and Linguistics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

Culture and social relationships in a wide variety of settings from small-scale to complex societies. An overview of how anthropology analyzes human behavior. Particular attention to the relationship between language and culture.

WB11	Jana Kopelentova Rehak Class time/details on ELMs	Seats (Total: 25) ONLINE

ANTH263 **Sexuality and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Credit only granted for: ANTH298K or ANTH263. Formerly: ANTH298K.

An overview of sexuality from an anthropological perspective, looking at aspects of sexuality within our own culture and in cultures around the world. Course topics include the biology and culture of sex, gender, physical attraction, sexual orientation, marriage and mating taboos, fertility control, sexually transmitted diseases, and commercial aspects of sex.

WB11	Charneka Lane Class time/details on ELMs	Seats (Total: 25) ONLINE

ANTH265 **Anthropology of Global Health**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DVUP, SCIS

An overview of the growing field of global health including health care systems, medical practices, ideas about illness in cross-cultural contexts, issues of health development, global health inequity, and human rights issues. The course will focus on the history of global health, the critique of major international health agencies and their development paradigms, and the political economy of social inequalities and health.

HY11	Laura Gilchrest	Seats (Total: 20)
	TuWTh 10:00am - 1:00pm MF 10:00am - 1:00pm	JMZ 0118 ONLINE

ANTH266 **Changing Climate, Changing Cultures**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DVCC, SCIS

Explore past, present, and future interactions between humans and climate. Discussions, methods-oriented activities, and case study analyses provide students a foundation for appreciating the role of anthropology in understanding, responding to, and preparing for climate change.

HY11	Jana Kopelentova Rehak	Seats (Total: 25)
	TuTh 11:00am - 3:00pm Class time/details on ELMs	JMZ 0103 ONLINE

ANTH463 **Climate Cultures**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Climate change is an inherently global problem. To a significant degree, its causes and consequences are cultural in nature: Climate change impacts, mitigation and adaptation efforts are perceived and addressed in culture-specific ways. This course will be an overview of the holistic and anthropological approaches to the study of how culture frames what we know and how we respond to climate change. Readings,lectures, and discussions will focus on how culture is expressed through the interplay of processes and practices in specific economic, social and political contexts.

WB11	Grit Martinez	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

ANTH469C **Advanced Special Topics in Cultural Anthropology; Language and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Upper level cultural anthropology courses on varying topics derived from new interests of the faculty or the specialties of visiting scholars.

Jointly offered with ANTH689C. Credit granted for ANTH469C or ANTH689C.

WB11	Jacqueline Messing	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

ANTH663 **Climate Cultures**

Credits: 3 Grading Method: Regular, Audit

Jointly offered with: ANTH463.

Climate change is an inherently global problem. To a significant degree, its causes and consequences are cultural in nature: Climate change impacts, mitigation and adaptation efforts are perceived and addressed in culture-specific ways. This course will be an overview of the holistic and anthropological approaches to the study of how culture frames what we know and how we respond to climate change. Readings,lectures, and discussions will focus on how culture is expressed through the interplay of processes and practices in specific economic, social and political contexts.

WB11	Grit Martinez	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

ANTH689A **Special Problems in Anthropology**

Credits: 1-6 Grading Method: Regular

Contact department for information to register for this course.

ANTH689C **Special Problems in Anthropology; Language and Culture**

Credits: 3 Grading Method: Regular

Jointly offered with ANTH469C. Credit granted for ANTH469C or ANTH689C.

WB11	Jacqueline Messing	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

ANTH701 **Anthropology Internship Preparation**

Credits: 3 Grading Method: Regular, Audit

Preparation for internship includes practicum training in development, presentation and evaluation of position papers, proposals and work plans; literature search and use of secondary data sources in decision making the effect cultural analysis and resource management; ethics and professional development for work in non-academic settings.

Contact department for information to register for this course.

ANTH712 **Anthropology Internship Analysis**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ANTH789.

The preparation and presentation of internship results, and the development of skills in report writing and presentation. Includes the completion of a professional quality report or publishable paper based on the internship experience.

Contact department for information to register for this course.

ANTH743 **Community Engagement and Consultation**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Cultural and Heritage Resource Management Program (CHRM); or by permission of the Anthropology department.

A grounding in cultural communication and sensitivity to community, cultural, and stakeholder needs within and beyond project specific confines. Using the broader context of practicing anthropology in the exploration of communication styles, learning styles, and cultural biases and taboos, students are exposed to underlying concepts concerning inter-cultural communication so that they may develop more collaborative approaches to research. The program also provides background in the development of public outreach programs in the context of cultural and heritage resource management.

PLA1	Marie Archambeault	Seats (Total: 20)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. For permission to enroll, contact oes@umd.edu.	

ANTH744 **Collections, Data Management and Cultural Materials Preservation**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Cultural and Heritage Resource Management Program (CHRM); or by permission of the Anthropology department.

An overview of the process of collecting cultural materials and samples with the goal of obtaining as much information during analysis as possible followed by content relating to archaeological curation and collections management. Provides information on the preservation of cultural materials from the time they leave the field until they are placed in a certified collections facility.

PLA1	Sandra Konzak	Seats (Total: 20)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. For permission to enroll, contact oes@umd.edu.	

ANTH788 **Internship Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

This course augments ANTH 789 and is graded in conjunction with it.

Contact department for information to register for this course.

ANTH789 **Internship**

Credits: 3-6 Grading Method: Regular, Audit

Individual instruction course supervised by a department faculty member.

Contact department for information to register for this course.

ANTH898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ANTH899 **Doctoral Dissertation Research**

Credits: 6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

AOSC Atmospheric and Oceanic Science Winter 2020

AOSC123 **Causes and Implications of Global Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS, SCIS

Cross-listed with GEOL123. Credit only granted for: AOSC123, GEOG123, GEOL123, or METO123. Formerly: METO123.

Responsible policy and decision making on issues related to the global environment requires understanding of the basic scientific issues, relationships between the geophysical and biological sciences, the impacts on regional and global endeavors, and the political manner in which humans respond. This course embodies an integrated introduction to the broad scientific and social aspects of the global change problem.

WB11	Jeffrey Henrikson	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

AOSC899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0101	Dale Allen	Seats (Total: 5)
	Contact instructor or department for details.	
0118	Zhanqing Li	Seats (Total: 5)
	Contact instructor or department for details.	

ARAB Arabic Winter 2020

ARAB341 **Filming War Zones: Representations of Wars in Iraq and Chechnya**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with FILM341. Credit only granted for: ARAB341 or FILM341.

Comparative study of ideological and cultural discourses in war films covering military conflicts in Iraq and Chechnya in late 20th-early 21st centuries. Materials include American, Middle Eastern, and Russian feature films and documentaries; theories of propaganda, ideology and popular culture. Taught in English.

WB11	Valerie Anishchenkova	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ARCH Architecture Winter 2020

ARCH458G **Selected Topics in Urban Design; Architecture, Urbanish and Landscape in Andalucia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Urban Design

Contact department for information to register for this course.

ARCH678W **Advanced Selected Topics in Architecture; ULI Seminar**

Credits: 3 Grading Method: Regular, Audit

Graduate Selected Topics in Architecture.

0101	Matthew Bell	Seats (Total: 5)
	Contact instructor or department for details.	

AREC Agricultural and Resource Economics Winter 2020

AREC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0137	Anna Alberini	Seats (Total: 10)
	Contact instructor or department for details.	

AREC899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0137	Anna Alberini	Seats (Total: 5)
	Contact instructor or department for details.	

ARTH Art History & Archaeology Winter 2020

ARTH200 **Art and Society in Ancient and Medieval Europe and the Mediterranean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU, DVUP

Examines the material culture and visual expressions of Mediterranean and European societies from early times until ca. 1300 CE, emphasizing the political, social, and religious context of the works studied, the relationships of the works to the societies that created them, and the interrelationship of these societies.

WB11	Amanda Chen	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

ARTH201 **Art and Society in the West from the Renaissance to the Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU, DVUP

Examines representative European and American works of art from the later Middle Ages to the present, highlighting the dynamic exchange between artistic and cultural traditions both within periods and across time.

WB11	Abigail Upshaw	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

ARTH359T **Film as Art; FILM as Art: James Bond Film: The Ideology of Spectacle**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

The study of film as a visual art, from theoretical, cultural and aesthetic perspectives. Content varies by semester.

WB11	Greg Metcalf	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

ARTH369D **Special Topics in Study Abroad III; Ancient Greek and Roman**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH369E **Special Topics in Study Abroad III; Andean Spaces: Traversing the Colonial City and Exploring the Natural World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

WAES	Matthew Aruch	Seats (Total: 0)
	Meets January 1, 2020 - January 21, 2020	
	Contact instructor or department for details.	

ARTT Art Studio Winter 2020

ARTT110 **Elements of Drawing I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Fundamental concepts, media, and processes of drawing. Emphasis on observation and representation in combination with individual expression. Subject matter includes still life, human figure, nature, the built environment, and conceptual projects.

Students must pay a $40.00 studio lab fee.

0101	Matthew Robertson MTuWThF 9:00am - 2:00pm	Seats (Total: 18) ASY 2317

ARTT150 **Introduction to Art Theory**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Fundamental concepts of global, philosophic, and critical art theory examined through various historic and contemporary texts, and the analysis of works of art.

Field trips listed in syllabus.

0101	Richard Klank MTuWThF 9:00am - 12:00pm	Seats (Total: 15) ASY 2309

ARTT210 **Elements of Drawing II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT110.

Continuation of ARTT110 with additional emphasis on color, figure drawing, and contemporary issues.

Students must pay a $40.00 studio lab fee.

0101	Matthew Robertson MTuWThF 9:00am - 2:00pm	Seats (Total: 10) ASY 2317

ARTT255 **Introduction to Digital Art and Design Processes**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT100 and ARTT110. Credit only granted for: ARTT255 or ARTT354. Formerly: ARTT354.

Introduction to basic software and principles of digital imaging, and how they are applied to art and design. Topics covered: Digital image construction and manipulation, Vector-Based digital techniques layout, typography, etc), time-based digital techniques (video and audio composition and manipulation), and basic interactivity (web-design). Digital media used to explore visual principles established in ARTT100.

WB11	Shannon Collis	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Online introduction to basic software and principles of digital imaging and how they are applied to art and design. Topics covered: Digital image construction and manipulation, Vector-Based digital techniques layout, typography, etc), time-based digital techniques (video and audio composition and manipulation), and basic interactivity (web-design). Digital media used to explore visual principles established in ARTT100.	

ARTT418 **Advanced Drawing Studio; Advanced Drawing**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT210. Students must pay a $40.00 studio lab fee.

0101	Matthew Robertson	Seats (Total: 10)
	MTuWThF 9:00am - 2:00pm	ASY 2321

ARTT468B **Seminar on the Interrelationship Between Art and Art Theory; Advanced Issues in Art Theory**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The relationship between a student's work and the theoretical context of contemporary art.

0101	Richard Klank	Seats (Total: 5)
	MTuWThF 9:00am - 12:00pm	ASY 2309

ARTT489P **Advanced Special Topics in Art; Photography in Oaxaca**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced studio art and theory within the context of a special topic.

Contact department for information to register for this course.

ARTT498 **Directed Studies in Studio Art**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

There is a $40.00 studio lab fee for this course.

Contact department for information to register for this course.

ARTT498A **Directed Studies in Studio Art**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

There is a $40.00 studio lab fee for this course.

Contact department for information to register for this course.

ARTT498B **Directed Studies in Studio Art**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

There is a $40.00 studio lab fee for this course.

Contact department for information to register for this course.

ARTT648 **Printmaking**

Credits: 3 Grading Method: Regular, Audit

Independent studies in printmaking for advanced special students.

There is a $60.00 studio lab fee for this course.

0101	Justin Strom	Seats (Total: 10)	
	MTuWThF 10:00am - 3:00pm	ASY 1317	Lab

ARTT699A **Directed Graduate Studies in Studio Art**

Credits: 1-4 Grading Method: Regular, Audit

Independent graduate studies.

0105	Instructor: TBA	Seats (Total: 2)
	Contact instructor or department for details.	

ARTT798B **Directed Graduate Studies in Studio Art**

Credits: 1-4 Grading Method: Regular, Audit

Independent graduate studies.

Contact department for information to register for this course.

BCHM Biochemistry Winter 2020

BCHM677 **Computational Tools in Biochemistry**

Credits: 1 Grading Method: Sat-Fail

Prerequisite: BCHM674 or BCHM671; or permission of instructor. Restriction: Must be in one of the following programs (Biochemistry (Master's); Biochemistry (Doctoral)) ; or permission of instructor.

A practical, hands-on introduction to the application of computational tools that support biochemistry research. Selected topics may include: efficient use of scientific literature databases and the preparation of professional bibliographies; proteomics and mass spectrometry; bioinformatics and genomics programs an database resources; molecular structure visualization and modeling; quatitative data fitting and error analysis; and laboratory research ethics.

Class begins meeting on Wednesday, January 6th.

0101	David Fushman	Seats (Total: 20)
	MWF 9:00am - 12:50pm	CHM 1224

BIOE Bioengineering Winter 2020

BIOE460 **Biotechnology and Bioproduction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Junior standing or higher. Credit only granted for: BIOE460, BIOE468B, or ENES489Q. Formerly: BIOE468B.

Basics of recombinant DNA technology and biopharmaceutical manufacturing.

0101	Ben Woodard, Kevin Knapstein	Seats (Total: 20)	
	MTuWThF 1:00pm - 2:50pm	KEB 1200	
	MTuWThF 3:00pm - 4:00pm	CHE 1203	Lab

BIOE489O **Special Topics in Bioengineering; Clinical Experiences in Biomedical Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE221.

0101	John Fisher	Seats (Total: 15)
	MTuWTh 9:00am - 12:15pm	AJC 2132

BIOM Biometrics Winter 2020

BIOM301 **Introduction to Biometrics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: FSAR

Prerequisite: MATH113 or MATH115. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Descriptive statistics, introduction to probability, sampling, confidence interval estimation, hypothesis testing, simple regression and correlation. Emphasis on simple applications of statistical techniques and interpretation of statistical results.

0101	Christine Hakenkamp	Seats (Total: 28)	
	MTuWThF 11:00am - 1:00pm	ANS 0408	
	MTuWThF 1:00pm - 2:00pm	ANS 0473	Discussion
0102	Christine Hakenkamp	Seats (Total: 28)	
	MTuWThF 11:00am - 1:00pm	ANS 0408	
	MTuWThF 10:00am - 11:00am	ANS 0473	Discussion
0103	Christine Hakenkamp	Seats (Total: 20)	
	MTuWThF 11:00am - 1:00pm	ANS 0408	
	MTuWThF 1:00pm - 2:00pm	ANS 0408	Discussion
	Students must have their own laptops.		

BISI Biological Sciences Winter 2020

BISI799 **Master's Thesis Research**

Credits: 3

Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

BISI899 **Doctoral Dissertation Research**

Credits: 1-6 Grading Method: Regular

0102	Hector Corrada Bravo	Seats (Total: 1)
	Contact instructor or department for details.	

BMGT Business and Management Winter 2020

BMGT099 **Internship Seminar**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Complements students' supervised work experiences. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

Contact department for information to register for this course.

BMGT220 **Principles of Accounting I**

Credits: 3 Grading Method: Regular

Basic theory and techniques of contemporary financial accounting. Includes the accounting cycle and the preparation of financial statements for single owner and partnership forms of business organizations operating as service companies or merchandisers.

0101	Viktoriya Zotova	Seats (Total: 45)
	TuWThF 1:30pm - 4:40pm	VMH 1307

BMGT221 **Principles of Accounting II**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT220.

Basic theory and techniques of accounting for managerial decision making. Involves the introduction of the corporation and manufacturing operations. Includes cost-volume-profit analysis and capital budgeting. Introduces the topics of income taxation and international accounting.

0101	Laurel Mazur	Seats (Total: 45)
	TuWThF 10:00am - 1:10pm	VMH 1307

BMGT230 **Business Statistics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

0101	Huan Cao	Seats (Total: 45)
	MTuWThF 1:30pm - 4:40pm	VMH 1336
	No class meeting on Friday, January 10th and Friday, January 17th.	

BMGT364 Managing People and Organizations

Credits: 3 | Grading Method: Regular

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

0101	Gosia Langa Basit	Seats (Total: 40)
	TuWThF 10:00am - 1:10pm	VMH 1314

BMGT380 Business Law I

Credits: 3 | Grading Method: Regular

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

0101	Justin Reyna	Seats (Total: 40)
	MTuWThF 10:00am - 12:45pm	VMH 1336

BMGT398B Individual Study in Business and Management; Germany in the New Europe: Politics, Business, and Culture

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

BMGT428D **Special Topics in Accounting; Accounting's Future, Present, and Past (Europe, NYC, DC)**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in Accounting.

Restricted to Business majors.

Contact department for information to register for this course.

BMGT428K **Special Topics in Accounting; The Impact of Globalization, Convergence and Fintech on the Financial Accounting Profession**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in Accounting.

Contact department for information to register for this course.

BMGT438R **Special Topics in Operations Management; Japan: From Quality Past to Automated Future**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in operations management.

Contact department for information to register for this course.

BMGT448W **Special Topics in Finance; Brexit: The Financial Effects on the EU and Beyond**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in finance.

Contact department for information to register for this course.

BMGT469K **Management and Organization Short-term Study Abroad; Social Entrepreneurship and Innovation in the Contemporary South African Context**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected short-term study abroad topics in management and organization.

Contact department for information to register for this course.

BMGT469N **Management and Organization Short-term Study Abroad; Entrepreneurship and Innovation in Morocco and France**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected short-term study abroad topics in management and organization.

Contact department for information to register for this course.

BMGT469O **Management and Organization Short-term Study Abroad; Leading Innovation and Design in a Cross-Cultural Setting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected short-term study abroad topics in management and organization.

Contact department for information to register for this course.

BMGT478E **Special Topics in Supply Chain Management; Supply Chain Management Study Abroad: Peru and Panama**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in supply chain management.

Contact department for information to register for this course.

BMGT498I **Special Topics in Business and Management; Social Entrepreneurship and Innovation in the Contemporary South African Context**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in business and management designed to meet the changing needs and interests of students and faculty.

Contact department for information to register for this course.

BMGT828 **Independent Study in Business and Management**

Credits: 1-9 Grading Method: Regular, Audit

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

BMGT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

BMGT899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

BSCI Biological Sciences Program Winter 2020

BSCI222 **Principles of Genetics**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131 and CHEM132; and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or must have completed BSCI105 or (BSCI170 and BSCI171); and two semesters of chemistry.

Principles and mechanisms of heredity and gene expression. Considers plant, animal, and microbial organisms.

WB11	Tammatha O'Brien	Seats (Total: 75)
	Class time/details on ELMs	ONLINE

BSCI339I **Selected Topics in Biology; Cellular Mechanisms of Aging and Disease**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

Prerequisite: C- or better in BSCI330. (Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG (Cell Biology category), GENB (Cell Biology/Physiology category), and PHNB. Students will explore the cellular mechanisms underlying aging and a variety of noninfectious diseases and disorders ranging from diabetes and obesity to Alzheimer's and various cancers. In addition to online lectures, students will read and discuss relevant primary and secondary literature in the area of cell biology and biomedicine. Assessments will include assignments/quizzes, discussion forums, and one or more wiki page/PowerPoint-based presentation covering topics relevant to aging and disease.

WB11	Hadiya Woodham	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

BSCI342 **Biology of Reproduction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI170 and BSCI171; or BSCI105; or permission of ARHU-Women's Studies department; or permission of CMNS-Biological Sciences UG Program. Cross-listed with WMST326. Credit only granted for: BSCI342 or WMST326.

The biology of the reproductive system with emphasis on mammals and, in particular, on human reproduction. Hormone actions, sperm production, ovulation, sexual differentiation, sexual behavior, contraception, pregnancy, lactation, maternal behavior, and menopause.

WB11	Justicia Opoku-Edusei	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

BSCI348J **Special Topics in Cell Biology and Molecular Genetics; Medical Microbiology**

Credits: 3 Grading Method: Regular, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI 348 may be applied to major.

Prerequisite: BSCI105 (grade of B or better) or BSCI223 or BSCI283. Credit only granted for BSCI424 or BSCI348J. Mechanisms of pathogenesis detection, prevention and treatment of bacterial, viral and parasitic pathogens of humans.

WB11	Volker Briken	Seats (Total: 12)
	Class time/details on ELMs	ONLINE

BSCI348M **Special Topics in Cell Biology and Molecular Genetics; Epidemiology of Microbial Pathogens**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI 348 may be applied to major.

Acceptable towards Biological Sciences areas: MICB and GENB. Prerequisite: BSCI105. Study of infectious bacteria and viruses acting at the population level in humans and animals. Identification of causes and spread of infection.

WB11	Jeffrey Olimpo	Seats (Total: 28)
	Class time/details on ELMs	ONLINE

BSCI348R **Special Topics in Cell Biology and Molecular Genetics; Microbiology Internship**

(Perm req)

Credits: 1-4

Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI 348 may be applied to major.

(Sponsoring Dept.: CBMG). An opportunity for students interested in microbiology to pursue a research project in an off-campus lab. The student must see the instructor and complete an information sheet found on the web site, prior to enrolling in the course. Web site: http://www.life.umd.edu/CBMG/progrms/department/micb388r.html

I101	David Straney	Seats (Total: 5)
	Contact instructor or department for details.	

BSCI361 **Principles of Ecology**

Credits: 4

Grading Method: Regular, Pass-Fail

Prerequisite: BSCI160 and BSCI161; or BSCI106. And (MATH130, MATH136, or MATH140).

Basic principles of population, community, and ecosystem ecology. Use of these principles to predict possible consequences of human-caused changes in the environment and to understand the level of uncertainty of those predictions.

WB11	Marcia Shofner	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

BSCI379G **Cell Biology and Molecular Genetics Department Research; Research in Cell Biology and Molecular Genetics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a member of the department.

Contact department for information to register for this course.

BSCI399 **Biology Department Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

Contact department for information to register for this course.

BSCI399L **Biology Department Research; Biology Lab Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

0101	Reid Compton	Seats (Total: 10)
	Contact instructor or department for details.	

BSST Terrorism Studies Winter 2020

BSST338C **Special Topics in Terrorism Studies; Australian and Pacific Rim Perspectives on Terrorism and Counterterrorism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

BSST338P **Special Topics in Terrorism Studies; The Rise of the Islamic State**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

The quick rise of the terrorist group self-described as the Islamic State, also known as the ISIL has surprised policymakers and foreign policymakers worldwide. This course provides a comprehensive look at the Islamic State and will discuss key concepts and terms in Islamic history in an effort to establish an understanding of Islamic jurisprudence, meaning of a caliphate, the five pillars of Islam and Sharia law. The course will trace the history of the Islamic States rise and will examine the leadership figures/personalities behind the group and look in depth at ISILs connection to and divorce from al-Qaida. Students will examine how the group finances its operations as well as the rise of its affiliates. Students will also explore the groups use of foreign fighters and social media to further its agenda and explore the U.S. and global responses to counter the Islamic State. At the completion of this course, students will have an in depth understanding of the Islamic State and a better understanding of the key tools, including law enforcement, diplomatic, or intelligence, that are deployed to counter the group.

WB11	Jason Blazakis	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

BSST338T **Special Topics in Terrorism Studies; India and the Netherlands: A Global Exchange for Young Leaders in Terrorism Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

BSST399N **Individual Study in Terrorism Studies; Social Network Analysis for Terrorism**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

An independent study course for students in the Global Terrorism Minor program.

WB11	Michael Egnoto	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

BSST638C **Special Topics in Terrorism Studies; Australian and Pacific Rim Perspectives on Terrorism and Counterterrorism**

Credits: 3 Grading Method: Regular, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

CBMG Cell Biology & Molecular Genetics Winter 2020

CBMG899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Doctoral Dissertation Research.

0121	Jeffrey DeStefano Contact instructor or department for details.	Seats (Total: 10)
0155	Volker Briken Contact instructor or department for details.	Seats (Total: 1)

CCJS Criminology and Criminal Justice Winter 2020

CCJS100 **Introduction to Criminal Justice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Introduction to the administration of criminal justice in a democratic society, with emphasis on the theoretical and historical development of law enforcement. The principles of organization and administration for law enforcement; functions and specific activities; planning and research; public relations; personnel and training; inspection and control; direction; policy formulation.

WB11	Kyle Dorsey Class time/details on ELMs	Seats (Total: 40) ONLINE

CCJS342 **Corrections**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department. Credit only granted for: CCJS342 or CCJS452.

Examination of the American correctional system. Identification of historical and contemporary themes, issues, and trends. Evaluation of correctional policies, practices and research.

WB11	Justine Madoo Class time/details on ELMs	Seats (Total: 40) ONLINE

CCJS359 **Field Training in Criminology and Corrections**

(Perm req)

Credits: 1-6 | Grading Method: Regular, Pass-Fail, Audit

Supervised field training in public or private social agencies. Group meetings, individual conferences and written program reports.

Prerequisites: (CCJS 105 or CRIM 220) and (CCJS 350 or CRIM 450), majors only and permission of department.

Contact department for information to register for this course.

CCJS360 **Victimology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105.

Overview of the history and theory of victimology. Analysis of victimization patterns with special emphasis on types of victims and crimes. The interaction between victims of crime and the criminal justice system with respect to the role of the victim and the services offered to the victim.

WB11	Kathryn Kozey	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

CCJS398 **Law Enforcement Field Training**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Supervised, structured and focused field training in law enforcement agencies.

Prerequisite: junior standing. Majors only.

Contact department for information to register for this course.

CCJS454 **Contemporary Criminological Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS300 and CCJS105.

Examination of the main theoretical accounts that explain the underlying causes of criminal behaviors. Explore how individual choices, socialization experiences, biological factors and social structure affect criminal behaviors.

WB11	Miranda Galvin	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

CCJS651 **Seminar in Criminology**

Credits: 3 Grading Method: Regular, Audit

Formerly: CRIM651.

Analysis of significant recent issues in Criminology.

Contact department for information to register for this course.

CCJS678F **Advanced Topics in Criminology and Criminal Justice; Criminal Law**

Credits: 3

Grading Method: Regular, Audit

An analysis of contemporary issues in criminology and criminal justice with special emphasis on research and theory developments.

Contact department for information to register for this course.

CCJS678G **Advanced Topics in Criminology and Criminal Justice; Criminal Justice System in China**

Credits: 3

Grading Method: Regular, Audit

An analysis of contemporary issues in criminology and criminal justice with special emphasis on research and theory developments.

Contact department for information to register for this course.

CHEM Chemistry Winter 2020

CHEM471 **Techniques in Pulse NMR**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM241 and CHEM242; or CHEM247. Recommended: CHEM460. Restriction: Senior standing or higher. Additional information: Persons with heart pacemakers and/or metal implants cannot take the course due to potential health hazards.

NMR techniques to operate, adjust, and calibrate the spectrometers and acquire and process NMR data in one and two dimensional NMR applications.

0101	Fu Chen	Seats (Total: 15)
	TuTh 11:00am - 1:05pm	CHM 0119

CHEM611 **Professional Skills for New Graduate Students**

Credits: 1

Grading Method: Regular, Audit

Restriction: Must be in one of the following programs (Chemistry (Master's); Biochemistry (Master's); Biochemistry (Doctoral); Chemistry (Doctoral)) ; and must be a new graduate student.

Covers a wide range of topics in professional development for new graduate students.

Contact department for information to register for this course.

CHEM612 **Scientific Presentations**

Credits: 1 Grading Method: Sat-Fail

Prerequisite: CHEM611.

Workshops will cover all aspects of giving scientific presentations. Each student will give a presentation based oon the topic of his/her final paper in CHEM611. Presentations will be critiqued by peers and faculty members.

0101	Efrain Rodriguez	Seats (Total: 40)
	MTuWThF 10:00am - 10:50am	CHM 0128

CHEM640 **Problems in Organic Reaction Mechanisms**

Credits: 1 Grading Method: Regular, Audit

A tutorial type course dealing with the basic description of the fundamentals of writing organic reaction mechanisms.

Contact department for information to register for this course.

CHPH Chemical Physics Winter 2020

CHPH499F **Special Problems in Chemical Physics**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Prerequisites: MATH141 and either MATH240 or PHYS274, or equivalent course work. Also offered as PHYS499F, CMSC488A, and ENEE489F. Credit only granted for: PHYS499F, ENEE489F, CMSC488A or CHPH499F. Designed for computer science, engineering and mathematics majors. Introduces basic concepts and techniques widely used in quantum information science.

0101	Charles Clark	Seats (Total: 40)
	MTh 10:00am - 12:30pm	PSC 2136

CHPH899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

CLAS Classics Winter 2020

CLAS289A **Are We Rome?**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH	General Education: DSHS, DSHU, SCIS
WB11	Gregory Staley	Seats (Total: 60)	
	Class time/details on ELMs	ONLINE	

CLAS308G **The Classics in Context; The Ancient Roman City: Pompeii and Beyond**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A Study Abroad course which introduces students to the topography, archaeology and culture of the ancient Mediterranean world.

Contact department for information to register for this course.

CLAS688G **Special Topics in Classical Civilization; Italy: Greek and Roman Culture in Context**

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

CLFS Chemical and Life Sciences Winter 2020

CLFS608 **Seminar in Current Topics in Chemical and Life Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Restricted to students in CLFS program. Contact Dr. Brett Kent (bkent@umd.edu) to establish a mentor; and then contact the Office of Extended Studies (oes@umd.edu) to register.

Contact department for information to register for this course.

CLFS608A **Seminar in Current Topics in Chemical and Life Science; Independent Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Restricted to students in CLFS program. Contact the Office of Extended Studies (oes@umd.edu) to register.

Contact department for information to register for this course.

CLFS609B **Special Topics; The Biology of Reproduction**

Credits: 3

Grading Method: Regular, Audit

Individual instruction course. Contact Program Director or instructor before registering.

PL01	Janet Norcross	Seats (Total: 15)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the CLFS program.	

CLFS609F **Special Topics; Principles of Paleobiology**

Credits: 3

Grading Method: Regular, Audit

Individual instruction course. Contact Program Director or instructor before registering.

PL01	Bretton Kent	Seats (Total: 15)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Must be in Master of Chemical & Life Sciences program. For permission to enroll, must be admitted into a term-based calendar graduate program. Contact oes@umd.edu.	

CLFS619A **Special Topics in Chemistry; Molecular Spectroscopy**

Credits: 3

Grading Method: Regular, Audit

Topics of current interest and special importance.

PL01	Marjan Alaghmand	Seats (Total: 15)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the CLFS program.	

CLFS630 **Principles of Transmission Genetics: A Historical and Modern Perspective**

Credits: 3

Grading Method: Regular, Audit

Examines the origins of modern genetics, model genetic systems, and the role of chromosomes in vertical transmission of genetic information from parent to offspring. Classical gene mapping, population genetics and the various applications of modern genetics will also be studied.

PL01	Nancy Trun	Seats (Total: 15)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the CLFS Program.	

CMSC Computer Science Winter 2020

CMSC388A **Special Topics in Computer Science; Introduction to Front End Client Development using React**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: CMSC330. Restriction: permission of department.

0101	Michael Hicks	Seats (Total: 105)
	TuThF 3:00pm - 4:25pm	CSI 1115

CMSC388B **Special Topics in Computer Science; Introduction to Back End Application Development in Node and Express**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: CMSC330. Restriction: permission of department.

0101	Michael Hicks	Seats (Total: 105)
	TuThF 4:30pm - 6:00pm	CSI 1115

CMSC388N **Special Topics in Computer Science; Build it, Break it, Fix it: Competing to Secure Software**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: permission of department

0101	Michelle Mazurek, Michael Hicks, Daniel Votipka MWF 12:00pm - 1:30pm	Seats (Total: 30) IRB 1207

CMSC388O **Special Topics in Computer Science; Cross-Platform Mobile Application Development using React Native**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: permission of department

0101	Michael Hicks MW 4:30pm - 6:00pm F 1:30pm - 3:00pm	Seats (Total: 105) CSI 1115 CSI 1115

CMSC488A **Special Topics in Computer Science; Quantum Boot Camp**

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisites: MATH141 and either MATH240 or PHYS274, or equivalent course work. Also offered as PHYS499F, ENEE489F, and CHPH499F. Credit only granted for: PHYS499F, ENEE489F, CMSC488A or CHPH499F. Designed for computer science, engineering and mathematics majors. Introduces basic concepts and techniques widely used in quantum information science.

0101	Charles Clark MTh 10:00am - 12:30pm	Seats (Total: 40) PSC 2136

CMSC498A **Selected Topics in Computer Science**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Contact department for information to register for this course.

CMSC499A **Independent Undergraduate Research**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Students are provided with an opportunity to participate in a computer science research project under the guidance of a faculty advisor. Format varies. Students and supervising faculty member will agree to a research plan which must be approved by the department. As part of each research plan, students should produce a final paper delineating their contribution to the field.

Contact department for information to register for this course.

CMSC798 **Graduate Seminar in Computer Science**

Credits: 1 Grading Method: Regular

Contact department for information to register for this course.

CMSC898 **Pre-Candidacy Research**

Credits: 1-3 Grading Method: Regular

Advanced topics selected by the faculty from the literature of applications of computer science to suit the interest and background of students.

Contact department for information to register for this course.

CMSC899 **Doctoral Dissertation Research**

Credits: 1 Grading Method: Regular

Contact department for information to register for this course.

COMM Communication Winter 2020

COMM107 **Oral Communication: Principles and Practices**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Jeannette Viens MTuWTh 9:00am - 12:30pm	Seats (Total: 19) LEF 1171
WB11	Neha Kamran Class time/details on ELMs	Seats (Total: 19) ONLINE
WB12	Raphael Mazzone Class time/details on ELMs	Seats (Total: 19) ONLINE

WB13	Duli Shi	Seats (Total: 19)
	Class time/details on ELMs	ONLINE

COMM200 **Critical Thinking and Speaking**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130, OR THET285.

Theory and practice of persuasive discourse analysis and composition. Research techniques, logical and rhetorical conceptions of argument, and technical principles for persuading in public venues.

WB11	Randall Fowler	Seats (Total: 19)
	Class time/details on ELMs	ONLINE

COMM288 **Communication Internship**

(Perm req)

Credits: 1-6 | Grading Method: Regular, Pass-Fail, Audit

An individual experience arranged by the student with the instructor. Does not satisfy communication major requirements. 45 hours of supervised internship per credit hour with communication professional. Not a substitute for COMM386.

I101	Julie Gowin	Seats (Total: 10)
	Contact instructor or department for details.	

COMM324 **Communication and Gender**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DSHU, DVUP

The creation of images of male and female, and masculine and feminine, through communication, the differences in male and female communication behaviors and styles, and the implications of those images and styles for male-female transactions.

WB11	Skye De Saint Felix	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

COMM369D **Special Topics in Study Abroad III; Digital Media in London**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of ARHU-Communication department. Restriction: Junior standing or higher; and must be in Communication program.

Supervised internship experience with communication professionals. Relation of academic training to professional experience.

Hours are completed at internship site.

I101	Julie Gowin	Seats (Total: 20)
	Contact instructor or department for details.	

COMM388 **Communication Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Supervised professional-level practice in communication.

Contact department for information to register for this course.

COMM398D **Selected Topics in Communication; Basics of Graphic Design for Strategic Communicators**

Credits: 3 Grading Method: Regular

Topical study of contemporary issues in communication.

WB11	Erich Sommerfeldt	Seats (Total: 18)
	Class time/details on ELMs	ONLINE

COMM398X **Selected Topics in Communication; The Rhetoric of Food Activism**

Credits: 3 Grading Method: Regular

Topical study of contemporary issues in communication.

Students will explore the connections between food, culture, and communication particularly surrounding efforts to build communities and promote social change. Students will engage theories of race, class, gender, citizenship, and social change in the study of historical and contemporary instances of food activism.

WB11	Lauren Hunter	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

COMM400 **Research Methods in Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM250; and must have an introductory course in statistics. Restriction: Must be in Communication program.

Philosophy of scientific method; role of theory; research ethics; empirical research methods (measurement, sampling, design, analysis).

WB11	Soyoung Bae	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Restricted to COMM majors only	

COMM401 **Interpreting Strategic Discourse**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM250. Restriction: Must be in Communication program.

Principles and approaches for practical analysis of discourse designed to shape audience opinion.

WB11	Jeremy Grossman	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Restricted to COMM majors only	

COMM488I **Communication Portfolio Project; Strategic Interviewing for the Career You Want**

Credits: 1 Grading Method: Regular

Preparation of the professional communication portfolio.

This course introduces students to advanced techniques in interviewing for job opportunities and career progression. This online course focuses on the dynamics of the interview process, the communication theories and best practices behind influence and persuasion, and the communication aptitudes and skills that distinguish top candidates.

WB11	Samantha Stanley	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

COMM489 **Topical Research; Topical Research**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Individualized research projects conducted with a faculty sponsor.

0106	Leah Waks	Seats (Total: 5)
	Contact instructor or department for details.	

COMM669 **Professional Practice Forum in Translation: Practicum**

Credits: 1-3 Grading Method: Regular, Audit

Provides opportunities to complete real-world translation projects on campus and in the public service, legal, business, and political communities as translators, project managers and translators/reviewers working on group projects. Collaboration with participants in the interpreting practicum is also sought to prepare multilingual texts for practicum events and familiarize participants with conference translation. Complements Translation for Specific Markets, and practicum projects are included in course and career reflective practice portfolios. Requires independent study plan agreed with course instructor.

PG01	Esperanza Pombo Lopez-Barron	Seats (Total: 16)
	Contact instructor or department for details.	
	Restricted to students in GSIT program.	

COMM759 **Professional Practice Forum in Interpreting: Practicum**

Credits: 1-3 Grading Method: Regular, Audit

Provides opportunities to interpret consecutively and simultaneously in real-world settings on campus and in the public service, legal, business, and political communities. Develops team leader skills by organizing and convening an event or series of events (conference, debate, or negotiation), selecting topics and delegates, and preparing speeches and arguments to deliver and interpret. Collaboration with participants in M.A. translation courses is sought. Requires independent study plan agreed with course instructor.

PG01	Esperanza Pombo Lopez-Barron	Seats (Total: 16)
	Contact instructor or department for details.	
	Restricted to students in GSIT program.	

COMM798 **Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

An individual course designed for intensive study or research of problems in communication.

Contact department for information to register for this course.

COMM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

COMM899 **Doctoral Dissertation Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

DANC Dance Winter 2020

DANC689D **Special Topics in Dance; Dance Pedagogy-Dance History**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Special Topics in dance theory, research or creative projects.

0101	Maura Keefe	Seats (Total: 3)
	Contact instructor or department for details.	

DANC689F **Special Topics in Dance; Professional Development in Dance and Theatre**

Credits: 1 Grading Method: Regular, Audit

Special Topics in dance theory, research or creative projects.

Cross-listed with THET669K. Credit only granted for DANC689F or THET669K.

HY11	Maura Keefe	Seats (Total: 12)
	W 10:00am - 11:45am Class time/details on ELMs	PAC 1924 ONLINE

DATA Data Science and Analytics Winter 2020

DATA601 **Probability and Statistics**

Credits: 3 Grading Method: Regular

Prerequisite: Undergraduate courses in calculus and basic linear algebra. Restriction: Must be in the Data Science Graduate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program; or the Master of Professional Studies in Machine Learning program. Cross-listed with: MSML601. Credit only granted for: DATA601 or MSML601.

Provides a solid understanding of the fundamental concepts of probability theory and statistics. The course covers the basic probabilistic concepts such as probability space, random variables and vectors, expectation, covariance, correlation, probability distribution functions, etc. Important classes of discrete and continuous random variables, their inter-relation, and relevance to applications are discussed. Conditional probabilities, the Bayes formula, and properties of jointly distributed random variables are covered. Limit theorems, which investigate the behavior of a sum of a large number of random variables, are discussed. The main concepts random processes are then introduced. The latter part of the course concerns the basic problems of mathematical statistics, in particular, point and interval estimation and hypothesis testing.

PCS1	Leonid Koralov	Seats (Total: 23)
	Meets November 25, 2019 - February 19, 2020	
	M 6:00pm - 9:30pm	CSI 1121
	Must be in Data Science & Analytics Program. For permission to enroll, contact oes@umd.edu.	

DATA602 **Principles of Data Science**

Credits: 3 Grading Method: Regular

Restriction: Must be in the Data Science Post-Baccalaureate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program. Credit only granted for: DATA602 or CMSC641. Formerly: CMSC641.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of what data science means and systems and tools commonly used for data science, and illustrates the principles of data science through several case studies.

PCD1	Prem Saggar	Seats (Total: 15)
	Meets November 25, 2019 - February 19, 2020	
	W 6:00pm - 9:30pm	CSI 1121
	Must be in Data Science Certificate Program. For permission to enroll, contact oes@umd.edu.	

PCS1	Prem Saggar **Meets November 25, 2019 - February 19, 2020** W 6:00pm - 9:30pm	Seats (Total: 18) CSI 1121
	Must be in Data Science & Analytics Program. For permission to enroll, contact oes@umd.edu.	

DATA603 **Principles of Machine Learning**

Credits: 3 Grading Method: Regular

Restriction: Must be in the Data Science Post-Baccalaureate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program. Credit only granted for: DATA603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCD1	Behtash Babadi **Meets November 25, 2019 - February 19, 2020** Tu 6:00pm - 9:30pm	Seats (Total: 12) Location: TBA
	Must be in Data Science Certificate Program. For permission to enroll, contact oes@umd.edu. Course meets in CSI 2118.	
PCS1	Behtash Babadi **Meets November 25, 2019 - February 19, 2020** Th 6:00pm - 9:30pm	Seats (Total: 14) CSI 3120
	Must be in Data Science & Analytics Program. For permission to enroll, contact oes@umd.edu.	

ECON Economics Winter 2020

ECON200 **Principles of Microeconomics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Credit only granted for: ECON200, AREC240, or AREC250. Additional information: It is recommended that students complete ECON200 before taking ECON201.

Introduces economic models used to analyze economic behavior by individuals and firms and consequent market outcomes. Applies conceptual analysis to several policy issues and surveys a variety of specific topics within the broad scope of microeconomics.

WB11	Gentry Johnson	Seats (Total: 65)
	Class time/details on ELMs	ONLINE

ECON201 **Principles of Macroeconomics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Recommended: ECON200. Credit only granted for: ECON201 or ECON205.

An introduction to how market economies behave at the aggregate level. The determination of national income/output and the problems of unemployment inflation, will be examined, along with monetary and fiscal policy.

WB11	Seula Kim	Seats (Total: 65)
	Class time/details on ELMs	ONLINE

ECON230 **Applied Economic Statistics**

Credits: 3 | Grading Method: Regular

Prerequisite: Must have math eligibility of MATH113 or higher; or 1 course with a minimum grade of C- from (MATH107, MATH110). And minimum grade of C- in ECON200 and ECON201. Recommended: Students should already have basic familiarity with Microsoft Excel or similar spreadsheet software. Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Introductory course to develop understanding of statistical concepts used in applied economics. Students will acquire skills needed to calculate and interpret statistical concepts, including descriptive statistics, probability, discrete and continuous distributions, sampling, point and interval estimations, hypothesis testing, basic analysis of variance, and simple linear regression models. Students will apply these concepts to data using both handheld calculators and spreadsheets(Excel), and students will be introduced to an econometric software package such as SPSS or SAS or R.

WB11	Nathalie Gonzalez	Seats (Total: 60)
	Class time/details on ELMs	ONLINE

ECON305 **Intermediate Macroeconomic Theory and Policy**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ECON201 and ECON200. And 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140); or must have completed MATH220 with a minimum grade of C-. Credit only granted for: ECON305 or ECON325.

Analysis of the determination of national income, employment, and price levels. Discussion of consumption, investment, inflation, and government fiscal and monetary policy.

WB11	Liang-Chieh Chiu	Seats (Total: 55)
	Class time/details on ELMs	ONLINE

ECON306 **Intermediate Microeconomic Theory & Policy**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (ECON200, AREC250); and minimum grade of C- in ECON201. And 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140); or must have completed MATH220 with a minimum grade of C-. Credit only granted for: ECON306, ECON326, AREC489M, or AREC326.

Analysis of the theories of consumer behavior, producer behavior, different market structures, and various sources of inefficient outcomes. Analysis of microeconomic policies designed to improve market outcomes.

WB11	Panagiotis Dimitrellos	Seats (Total: 55)
	Class time/details on ELMs	ONLINE

ECON340 **International Economics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON340 or ECON441.

Introduces economic models of international trade and finance. Analyzes policies designed to promote and restrict international trade and to manage exchange rates and impact international capital flows.

This is a completely online course with both synchronous and asynchronous elements. Students are required to login at the time specified for the discussion section but additional work outside of this time is required as well.

WB12	Dheeraj Chaudhary	Seats (Total: 25)	
	Class time/details on ELMs	ONLINE	
	F 4:00pm - 5:30pm	ONLINE	Discussion

ECON358B **Special Topics in Study Abroad III; Energy, Climate Change, and Options for a Low-Carbon Economy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON414 **Game Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT400). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: CMSC474, ECON414, GVPT399A or GVPT390.

Studies the competitive and cooperative behavior that results when several parties find that their individual outcomes are jointly determined. Students will learn how to use game theory to analyze situations of potential conflict. Applications are drawn from economics, business, and political science.

0101	Erika Domotor	Seats (Total: 30)
	MTuWTh 10:00am - 1:10pm	LEF 1201

ECON418L **Economic Development of Selected Areas; Latin America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Economic and institutional characteristics of a specific geographic area are identified and discussed, and alternate strategies and policies for development are analyzed.

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts Program. Description: Using examples from different historical and geographic contexts, students will analyze both the diversity and the commonalitiesof economic outcomes in Latin America, with an emphasis on institutionalpatterns. The class analyzes the divergence between North America and Latin America since the 1700s; surveys Latin America's economic history;reviews the region's recent economic experience with macroeconomic crises and their interaction with the political sphere; and explores current topics in the region's economic development, like the war on drugs and the rise of leftist policies.

WB11	Mateo Uribe-Castro	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ECON426 **Economics of Cost-Benefit Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON306, ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Study of how to use cost benefit analysis and other similar tools of applied microeconomics to conduct policy analyses. Cost-benefit analysis is an empirical method of identifying an optimal choice from a set of policy alternatives, where optimal is defined in terms of economic efficiency. Real world examples are addressed, so that students understand limitations of the methods and also interactions of economic analysis with political and administrative processes.

0101	Olga Fetisova-Canas	Seats (Total: 30)
	MTuWTh 10:00am - 1:10pm	LEF 1220

ECON434 **The Economics of Information and Uncertainty**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT400). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: ECON498U or ECON434. Formerly: ECON498U.

How do rational agents make decisions when faced with uncertainty? How do markets and other institutions deal with risks? How do markets behave when some actors are better informed than others? What incentives influence whether economic decision-makers hide or reveal information? Topics include the value of information, the purchase of warranties, agency problems in management, adverse selection and moral hazard in insurance, and signaling in education.

WB11	Richard Stahnke	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

ECON642 **Topics in Applied Macroeconomics**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in M.Prof.Studies: Applied Economics program; or permission of BSOS-Economics department.

Focus is on applied macroeconomic models used by federal agencies to explain and predict economic behavior. Course emphasizes macroeconomic data: NIPA accounts, GDP, construction and application of CPI, labor force data and economic indicators. Students will also study a selected set of current macroeconomic topics including models of economic growth, economic fluctuations, monetary policy, inflation and financial markets.

PR01	Kerk Phillips	Seats (Total: 26)	
	Meets November 25, 2019 - February 19, 2020		
	Tu 6:45pm - 9:30pm	Location: TBA	
	Class time/details on ELMs	ONLINE	Discussion
	Restricted to students in the MPS in Applied Economics-WDC. Class meets at 1400 16th St, NW, Washington, DC.		

ECON644 **Empirical Analysis II: Introduction to Economic Models**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON643.

An introduction to econometric methods with applications to public policy analysis. Primary focus on application and interpretation of multiple regression analysis.

PR01	Razvan Vlaicu	Seats (Total: 23)	
	Meets November 25, 2019 - February 19, 2020		
	Th 6:45pm - 9:30pm	Location: TBA	
	Class time/details on ELMs	ONLINE	Discussion
	Restricted to students in the MPS in Applied Economics-WDC. Class meets at 1400 16th St, NW, Washington, DC.		

ECON672 **Program Analysis and Evaluation**

Credits: 3 | Grading Method: Regular, Audit

Prerequisite: ECON641 and ECON645.

Students study the tools used to evaluate the effectiveness of public policies. All evaluations have weaknesses, and some have more weaknesses than others. You will learn how to distinguish high from low quality evaluations. We will discuss the basic economics and econometrics of program evaluation, focusing on the application of methods used for causal inference and cost-benefit analyses in public policy contexts. We will examine published evaluation research with the intent of showing how the research does or does not lead to clear conclusions regarding program performance.

PR01	Tomas Monarrez Palma	Seats (Total: 23)	
	Meets November 25, 2019 - February 19, 2020		
	M 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Restricted to students in the MPS in Applied Economics-WDC. Class meets at 1400 16th St, NW, Washington, DC.		

ECON675 Environmental Economics

Credits: 3 | Grading Method: Regular, Audit

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON645.

A study of the nature of environmental regulation focusing on U.S. environmental policies and policy debates.

PR01	Paul Dockins, Charles Griffiths	Seats (Total: 23)	
	Meets November 25, 2019 - February 19, 2020		
	W 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Restricted to students in the MPS in Applied Economics-WDC Class meets at 1400 16th St, NW, Washington, DC.		

ECON684 Applied Time Series Analysis and Forecasting

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON642; and ECON645. Restriction: Must be in M.Prof.Studies: Applied Economics program.

This course builds on the brief introduction to time series econometrics offered in ECON 645. Students will learn the theory of stationary processes and how it applies to econometric techniques for estimation and forecasting based on time series data. The techniques will be applied in macroeconomic, financial and business applications.

PR01	David Burk	Seats (Total: 23)	
	Meets November 25, 2019 - February 19, 2020		
	Tu 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Restricted to students in the MPS in Applied Economics-WDC Class meets at 1400 16th St, NW, Washington, DC.		

ECON698 **Selected Topics in Economics**

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

ECON898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ECON899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

EDCP Education Counseling and Personnel Services — Winter 2020

EDCP498 **Special Problems in Counseling and Personnel Services**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Available only to major students who have formal plans for individual study of approved problems.

0151	Candace Moore	Seats (Total: 5)
	Contact instructor or department for details.	

EDCP665 **Family and Social Support Systems**

Credits: 3 Grading Method: Regular, Audit

Recommended: EDCP610.

Principles and methods useful for understanding the role of family support systems in counseling. Specialized skills for counseling impaired adults and their families.

Class meets January 14th, 15th, 16th, 17th and 18th. There will also be a 15 hour counseling lab outside of class.

HY11	Ileana Gonzalez	Seats (Total: 20)	
	Meets January 13, 2020 - January 17, 2020		
	MTuWThF 10:00am - 4:00pm	EDU 2101	
	Class time/details on ELMs	ONLINE	Lab

EDCP694 Student Leadership Development

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCP694 or EDCP789D. Formerly: EDCP789D.

Explores the development of leadership among college students including the study of leadership theory; a focus on how leadership is learned and developed; cultural demensions of leadership; and exposure to the current national scene in leadership associations, programs, and resources.

WB11	Craig Slack, Melissa Rocco	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Course outline and meeting details available on ELMS. Contact leadershipstudies@umd.edu with questions.	

EDCP788 Advanced Practicum

Credits: 1-6 Grading Method: Regular, Audit

Individual supervision in one of the following areas: (a) individual counseling, (b) group counseling, (c) consultation, or (d) administration.

0151	Candace Moore	Seats (Total: 1)
	Contact instructor or department for details.	

EDCP789 Advanced Topics in Counseling and Personnel Services

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit

Contact department for information to register for this course.

EDCP789R **Advanced Topics in Counseling and Personnel Services; College Teaching Seminar**

Credits: 1-6

Grading Method: Regular, Audit

0101	Candace Moore	Seats (Total: 10)
	Contact instructor or department for details.	

EDCP798 **Special Problems in Counseling and Personnel Services; Special Problems in Counseling and Personnel Services**

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit

Master's AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number.

Individual Instruction course: contact department or instructor to obtai n section number for winter term.

Contact department for information to register for this course.

EDCP799 **Master's Thesis Research**

Credits: 1-6

Grading Method: Regular, Sat-Fail

Registration required to the extent of six hours for Master's thesis.

Contact department for information to register for this course.

EDCP888 **Apprenticeship in Counseling and Personnel Services**

Credits: 1-8

Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

EDCP888A **Apprenticeship in Counseling and Personnel Services**

Credits: 1-8

Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0170	Julie Park	Seats (Total: 1)
	Contact instructor or department for details.	

EDCP889 **Internship in Counseling and Personnel Services**

Credits: 1-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDCP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

EDCP899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Registration required to the extent of 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDHI Education Leadership, Higher Ed and International Ed — Winter 2020

EDHI338A **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Global Service in the Dominican Republic**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on difficult topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Contact department for information to register for this course.

EDHI489 **Field Experiences in Education**

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHI667 **Women in Higher Education**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDHI667 or EDHI788A. Formerly: EDHI788A.

A comprehensive overview of the history, present condition, and current research on women students, faculty, adminstrators, and staff in higher education. Explores why and how women and men experience higher educaton differently, by drawing on historical, cultural, and psychological contexts, feminist theoretical and research perspectrives and recent research in various disciplines.

Contact department for information to register for this course.

EDHI788 **Special Topics in Education Policy and Administration**

Credits: 1-3 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in education policy and administration.

0108	KerryAnn O'Meara	Seats (Total: 2)
	Contact instructor or department for details.	

EDHI788J **Special Topics in Education Policy and Administration; Education in Conflict and Emergencies**

Credits: 3 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in education policy and administration.

The course will expose students to the importance of education in times of crisis, especially by countries identified internationally by the OECD as "states of fragility," economically less developed countries that experience greater occurrences of violent conflict and/or disasters

HY11	Anne Corwith Tu 5:00pm - 8:00pm Class time/details on ELMs *Meets face-to-face January 8, 15, 22.*	Seats (Total: 20) EDU 1315 ONLINE

EDHI788L **Special Topics in Education Policy and Administration; Language Policies and Educational Inequalities in a Global Context**

Credits: 3 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in education policy and administration.

WB11	Brendan Decoster Class time/details on ELMs	Seats (Total: 15) ONLINE

EDHI798 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master's, AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Contact department for information to register for this course.

EDHI888 **Apprenticeship in Education**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Sharon Fries-Britt Contact instructor or department for details.	Seats (Total: 5)
0135	Alberto Cabrera Casillas Contact instructor or department for details.	Seats (Total: 5)

EDHI889 **Internship in Education**

Credits: 3-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDHI898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

0114	Jing Lin	Seats (Total: 2)
	Contact instructor or department for details.	

EDHI899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDMS Measurement, Statistics, and Evaluation — Winter 2020

EDMS798 **Special Problems in Education**

Credits: 1-6 Grading Method: Regular, Audit

Master's, EDMS majors, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

0201	Gregory Hancock	Seats (Total: 20)
	Contact instructor or department for details.	

EDSP Education, Special — Winter 2020

EDSP210 **Introduction to Special Education**

Credits: 3 Grading Method: Regular, Audit General Education: DVUP

Restriction: Sophomore standing or lower. Credit only granted for: EDSP210 or EDSP470.

Characteristics and needs of individuals receiving special education and related services. Current issues and practices in special education.

WB12	Leslie Page-Voth Class time/details on ELMs	Seats (Total: 20) ONLINE

EDSP376 **Fundamentals of Sign Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Receptive and expressive skills in American Sign Language. Examination of the causes of deafness, characteristics of deaf education, and aspects of the culture of the deaf community.

WB11	Elizabeth Martinez Class time/details on ELMs	Seats (Total: 30) ONLINE
WB12	Michael Dunham Class time/details on ELMs	Seats (Total: 30) ONLINE

EDSP470 **Introduction to Special Education**

Credits: 3 Grading Method: Regular, Audit General Education: DVUP

Restriction: Must not have completed EDSP210. Credit only granted for: EDSP210 or EDSP470.

Designed to give an understanding of the needs of all types of exceptional children.

IH21	Leslie Page-Voth Class time/details on ELMs	Seats (Total: 1) ONLINE
WB12	Leslie Page-Voth Class time/details on ELMs	Seats (Total: 20) ONLINE

EDSP488B **Selected Topics in Teacher Education; El Salvador's Children: Risk, Poverty and Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

EDSP601 **Special Education for School Counselors**

Credits: 3 Grading Method: Regular

Restriction: Must be in Counseling and Personnel Services (Master's) program. Credit only granted for: EDSP470 or EDSP601.

Designed to give school counseling students an understanding of the needs of children with disabilities, and the school-based services that they received. The course focuses on the school counselor's role in identifying and supporting children who have disabilities.

WB11	Yewon Lee	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

EDSP788B **Selected Topics in Special Education; El Salvador's Children: Risk, Poverty and Education**

Credits: 3 Grading Method: Regular, Audit

Current topics and issues in teacher education.

Contact department for information to register for this course.

EDSP798 **Special Problems in Special Education**

Credits: 1-6 Grading Method: Regular, Audit

Intended for Master's, AGS, or doctoral students in education who desire to pursue a research problem.

Contact department for information to register for this course.

EDSP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Registration required to the extent of six hours for Master's thesis.

Contact department for information to register for this course.

EDSP888 **Apprenticeship in Special Education**

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP888A **Apprenticeship in Special Education; Apprenticeship in College Teaching**

Credits: 3 Grading Method: Regular

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP889 **Internship in Special Education**

Credits: 3-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDSP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

EDSP899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. dissertation.

Contact department for information to register for this course.

EMBA Executive MBA Program Winter 2020

EMBA759 **Independent Study**

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in Business.

EC01	Robert Sheehan Contact instructor or department for details.	Seats (Total: 30)
EM01	Robert Sheehan Contact instructor or department for details.	Seats (Total: 5)

ENAE Engineering, Aerospace Winter 2020

ENAE488Z **Topics in Aerospace Engineering; The Future of Small Aerospace Systems in Auckland, New Zealand**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Contact department for information to register for this course.

ENAE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0102	Imraan Faruque	Seats (Total: 1)
	Contact instructor or department for details.	

ENAE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENCE Engineering, Civil Winter 2020

ENCE489I **Special Problems in Civil Engineering; Sustainable Green Infrastructure for the Urban Environment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Contact department for information to register for this course.

ENCE689 **Seminar**

Credits: 1-16 Grading Method: Regular, Audit

0112	Peter Chang	Seats (Total: 1)
	Contact instructor or department for details.	
0190	Gang-Len Chang	Seats (Total: 5)
	Contact instructor or department for details.	

ENCE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

0103	Qingbin Cui Contact instructor or department for details.	Seats (Total: 2)
0104	Ahmet Aydilek Contact instructor or department for details.	Seats (Total: 5)
0108	Ali Haghani Contact instructor or department for details.	Seats (Total: 2)
0153	Allison Reilly Contact instructor or department for details.	Seats (Total: 5)
0170	Allen Davis Contact instructor or department for details.	Seats (Total: 5)

ENCE899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0106	Gregory Baecher Contact instructor or department for details.	Seats (Total: 5)
0108	Ali Haghani Contact instructor or department for details.	Seats (Total: 2)
0120	Yunfeng Zhang Contact instructor or department for details.	Seats (Total: 2)
0121	Steven Gabriel Contact instructor or department for details.	Seats (Total: 5)
0124	Gang-Len Chang Contact instructor or department for details.	Seats (Total: 5)
0148	Lei Zhang Contact instructor or department for details.	Seats (Total: 5)

ENCH Engineering, Chemical Winter 2020

ENCH799 **Master's Thesis Research; Masters Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

0126	Srinivasa Raghavan Contact instructor or department for details.	Seats (Total: 5)

ENCH898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0106	Mikhail Anisimov Contact instructor or department for details.	Seats (Total: 5)
0123	Chunsheng Wang Contact instructor or department for details.	Seats (Total: 5)

ENCH899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENEE Electrical & Computer Engineering Winter 2020

ENEE131 **Technology Choices**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE General Education: DSSP, SCIS

An exploration of the positive and negative effects of technology on society, via diverse criteria to assess the relative well being of individuals and society; an examination of how society can help shape the future of technology and the tools that can be used to make wise technology choices.

0101	Wesley Lawson MTuWThF 10:00am - 12:50pm	Seats (Total: 20) AJC 2121

ENEE200 **Technology and Consequences: Engineering, Ethics, and Humanity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE General Education: DSHU, SCIS

What makes a technology socially responsible? At UMD, the Fearless Ideas campaign asks us to aim our enthusiasm for technology at big real problems. At the same time, we are coming to appreciate the increasingly complex nature of technological systems as they become integrated into all forms of infrastructure, we realize they may be unpredictable, interdependent on social and biological systems, and have unintended consequences. In this midst of this complexity, people make decisions with far reaching impacts. How then do we follow our passion for technology and innovation but also stay skeptical in a way that allows us to consider the potential and shortcomings of technology? Designed for both engineering and non-engineering students wishing to explore and assess the impact of engineering technology on society and the role of society in generating that technology.

0101	Nicole Mogul	Seats (Total: 23)	
	MTuWThF 10:00am - 11:50am	TWS 1313	
	MTuWThF 1:00pm - 2:50pm	TWS 1313	Discussion

ENEE489F **Topics in Electrophysics; Quantum Boot Camp**

Credits: 1 Grading Method: Regular

Selected topics of current importance in electrophysics.

Prerequisites: MATH141 and either MATH240 or PHYS274, or equivalent course work. Also offered as PHYS499F, CMSC488A, and CHPH499F. Credit only granted for: PHYS499F, ENEE489F, CMSC488A or CHPH499F. Designed for computer science, engineering and mathematics majors. Introduces basic concepts and techniques widely used in quantum information science.

0101	Charles Clark	Seats (Total: 40)
	MTh 10:00am - 12:30pm	PSC 2136

ENEE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Sat-Fail

0104	Ramalingam Chellappa	Seats (Total: 10)
	Contact instructor or department for details.	

0111	Larry Davis Contact instructor or department for details.	Seats (Total: 5)
0126	David Jacobs Contact instructor or department for details.	Seats (Total: 5)
0144	Frederick Wellstood Contact instructor or department for details.	Seats (Total: 5)
I102	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

ENES Engineering Science Winter 2020

ENES102 **Mechanics I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Corequisite: MATH140. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Formerly: ENES110.

The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, centroids, moment of inertia, beams, friction, stress/strain, material properties. Vector and scalar methods are used to solve problems.

0101	Aris Cleanthous MTuWThF 10:00am - 2:00pm	Seats (Total: 55) EGR 1108

ENES220 **Mechanics II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; and must not be in Engineering: Electrical program.

Stress and deformation of solids-rods, beams, shafts, columns, tanks, and other structural, machine and vehicle members. Topics include stress transformation using Mohr's circle; shear and moment diagrams; derivation of elastic curves; and Euler's buckling formula. Design problems related to this material are given in lab.

0101	Thomas Beigel MTuWThF 10:00am - 2:00pm	Seats (Total: 42) ANS 0412

ENES221 **Dynamics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

Systems of heavy particles and rigid bodies at rest and in motion. Force-acceleration, work-energy and impulse-momentum relationships. Motion of one body relative to another in a plane and in space.

0101	Patrick McAvoy	Seats (Total: 60)
	MTuWThF 10:00am - 2:00pm	CHE 2108

ENES232 **Thermodynamics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS261 and PHYS260. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Credit only granted for: BIOE232, CHBE301, ENCH300, ENES232, ENME320, or ENME232. Formerly: ENME232 and ENME320.

Introduction to thermodynamics. Thermodynamic properties of matter. First and second laws of thermodynamics, cycles, reactions, and mixtures.

0101	Taylor Myers	Seats (Total: 65)
	MTuWThF 10:00am - 2:00pm	JMP 3201

ENES316 **Global Leadership in Engineering, Business, & Technology**

Credits: 3 Grading Method: Regular

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or permission of instructor. Additional information: Students will be required to participate in off-campus industry visits outside of the formal class meeting time.

An introduction to global leadership research, theories, and practice with an emphasis on applied dimensions of global leadership in the engineering, business, and technology sectors. This course prepares students to further their knowledge and capacities for global leadership to be successful in industry.

Contact department for information to register for this course.

ENES317 **Introduction to Engineering Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: Permission of ENGR-A. James Clark School of Engineering.

Focus is placed on general leadership theories in addition to real-world applications of leadership in engineering education, industry, and government.

Contact department for information to register for this course.

ENES458A **Topics in International Engineering; Engineers Without Borders: Leadership Seminar**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

Contact department for information to register for this course.

ENES458C **Topics in International Engineering; Leadership Seminar-Monitoring_Burkina Faso**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

Contact department for information to register for this course.

ENES458I **Topics in International Engineering; Engineers Without Borders-Leadership Seminar**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

Contact department for information to register for this course.

ENES460 **Fundamentals of Technology Start-Up Ventures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Maryland Technology Enterprise Institute. Credit only granted for: ENES460, BMGT461 or HLMN470. Additional information: Course may not be used to fulfill any BMGT major or minor program requirement.

Fundamental aspects of creating, organizing, funding, managing, and growing a technology startup venture. This multidisciplinary course will draw on management, business, legal, financial, as well as technical, concepts. Students form teams and develop a business plan for a technology company, based on each team's own business idea and then present the plan to a panel of outside experts.

For winter term, permission restrictions will not apply. The course is open to all students.

WB11	Cait von Schnetlage	Seats (Total: 70)
	Class time/details on ELMs	ONLINE

ENES463 **Strategies for Managing Innovation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Maryland Technology Enterprise Institute. Credit only granted for: ENES463, BMGT467 or HLMN472. Additional information: Course may not be used to fulfill any BMGT major or minor program requirement.

Emphasizes how the technology entrepreneur can use strategic management of innovation and technology to enhance firm performance. Examines the process of technological change, the ways that firms come up with innovations, the strategies that firms use to benefit from innovation, and the process of formulating technology strategy. Provides frameworks for analyzing key aspects of these industries and teaches students how to apply these frameworks.

For winter term, permission restrictions will not apply. The course is open to all students.

WB11	Thomas Mierzwa	Seats (Total: 56)
	Class time/details on ELMs	ONLINE

ENES472 **International Business Cultures in Engineering and Technology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Prerequisite: Permission of ENGR-A. James Clark School of Engineering. Restriction: Sophomore standing or higher. Credit only granted for: ENES472, SLLC471, or SLLC473.

The goal is to provide students with an understanding of cultural aspects pertaining to global business and engineering and develop the cultural understanding, attitudes, and communication skills needed to function appropriately within an increasingly global and multicultural working environment.

Contact department for information to register for this course.

ENES474 **Global Perspectives of Engineering**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100; or permission of ENGR-A. James Clark School of Engineering. Restriction: Must be in the International Engineering Minor. Credit only granted for: ENES458M or ENES474. Formerly: ENES458M.

Faculty supervised research on aspects of engineering in a foreign country including leading fields of research, key world markets, and the culture of the engineering workplace. Students will produce a comprehensive report exhibiting their expertise in their chosen country and the field of engineering within.

Contact department for information to register for this course.

ENES489Z **Special Topics in Engineering; Biotechnology and Bioproduction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in engineering.

0101	Ben Woodard, Kevin Knapstein	Seats (Total: 20)	
	MTuWThF 1:00pm - 2:50pm	KEB 1200	
	MTuWThF 3:00pm - 4:00pm	CHE 1203	Lab

ENES664 **Business Modeling and Customer Validation**

Credits: 3 Grading Method: Regular

Prerequisite: ENES662 and ENES663.

Focuses on how to create and deliver value for customers and extract value for the new venture. Develop business models that encompass the product or service, customers, and the economic engine to meet the venture's financial and growth objectives. Introduces a structured way to think about, analyze, and develop a sound business model that is customer validated.

PLM1	Daniel Gordon	Seats (Total: 50)	
	Meets November 25, 2019 - February 19, 2020		
	Class time/details on ELMs	ONLINE	
	Restricted to students in the MPTE Program.		

ENES665 **Innovative Thinking**

Credits: 3 Grading Method: Regular

Prerequisite: ENES662 and ENES663.

Introduces students to new and powerful tools to boost their creative problem solving skills. Participants re-discover their communication and teaming skills. Students unlock their creativity potential, and explore win-win approaches to define and solve problems of different kinds. Students are also introduced to topics related to intellectual property.

PLM1	Frankie Abralind	Seats (Total: 50)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the MPTE Program.	

ENES670 **Financial Management and New Venture Financing**

Credits: 3 Grading Method: Regular

Prerequisite: ENES666 and ENES667.

Provides the essential tools and skills to build a strong financial foundation for a new technology venture. Examines accounting principles as well as methods for keeping firm financial control of the venture. Discusses navigating the multitude of financial barriers that may block entrepreneurial success, as well as how to raise the right amount of capital at the right time from the right source.

PLM1	Michael Pratt	Seats (Total: 50)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the MPTE Program.	

ENES671 **Legal Aspects of Entrepreneurship**

Credits: 3 Grading Method: Regular

Prerequisite: ENES666 and ENES667.

Explores critical legal and business issues entrepreneurs face as they build and launch a new venture. Examines real world scenarios, and addresses the legal issues at all of the important junctures along the path to success. Significant attention placed on new venture formation, intellectual property management, and financing arrangements.

PLM1	Wilson White	Seats (Total: 50)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the MPTE Program.	

ENFP429 **Independent Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

For students who have definite plans for individual study of approved problems, or study of an advanced topic selected in conjunction with the faculty.

Contact department for information to register for this course.

ENFP613 **Advanced Life Safety Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP413 or ENFP613.

Fractional effective dose (FED) methods for predicting time to incapacitation and death of fires for use in fire safety engineering calculations. Physiology and toxicology of fire effluent components, decomposition chemistry of common materials, standard experimental approaches. Predictive models of material production rates. People movement characteristics related to building evacuation. Formulation and application of evacuation models. Human behavior factors affecting response of people to fire situations.

EF01	Jamie McAllister, Aoife Hunt, Steven Gwynne **Meets December 9, 2019 - February 28, 2020** Class time/details on ELMs	Seats (Total: 40) ONLINE

ENFP651 **Advanced Fire Dynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENFP629A or ENFP651. Formerly: ENFP629A.

A review of the basic chemistry and physics necessary to understanding fire dynamics; and of the physics of heat transfer and turbulent fluid flow will be given. The nature and structure of premixed and diffusion flames will be presented.

EF01	Stanislav Stoliarov	Seats (Total: 40)
	Meets December 9, 2019 - February 28, 2020	
	Class time/details on ELMs	ONLINE

ENFP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Development and completion of Master's Thesis.

Contact department for information to register for this course.

ENGL English Winter 2020

ENGL245 **Film Form and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU

Cross-listed with FILM245. Credit only granted for: ENGL245 or FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

Click here for more course information.

WB11	Alexandria Nunn	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ENGL269M **Special Topics in Study Abroad II; Morocco: In the Footsteps of the Beat Generation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL321 **Comics and the Graphic Novel**

Credits: 3 Grading Method: Regular, Pass-Fail

Comics has become one of the most globally popular art forms of the twenty-first century, but it also has a rich history that stretches back to the eighteenth century, and arguably much earlier. This course will introduce students to the unique formal properties of comics and will survey the history of comics across national traditions, including texts drawn from the American, Franco-Belgian, and Japanese traditions. We will read across a range of genres and cultural registers--including newspaper strips, superhero comics, Underground comix, manga, the graphic memoir, and alternative comics. You will learn to analyze and write about the form and history of the medium.

WB11	Lee Konstantinou	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ENGL359F **Lesbian, Gay, Bisexual, and Transgender Film and Video**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Restriction: Junior standing or higher. Cross-listed with: LGBT327. Credit only granted for: LGBT327 or ENGL359F.

Comparative analysis of forms, themes, and the politics of representation in film and video by and/or about LGBT people.

Cross-listed with ENGL359F. Credit granted for LGBT327 or ENGL359F. Comparative analysis of forms, themes, and the politics of representation in film and video by and/or about LGBT people.

Click here for more course information.

WB11	James Goodwin	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

ENGL369D **Special Topics in Study Abroad III; Australian Literature and Culture, Aboriginal to Contemporary**

Credits: 1-6 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVCC

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369N **Special Topics in Study Abroad III; Literature and Culture_New Zealand**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVCC

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369T **Special Topics in Study Abroad III; Cultures of Latin America-Readings on Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Y **Special Topics in Study Abroad III; Australian Literature and Culture**

Credits: 3-6 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL391 **Advanced Composition**

Credits: 3 | Grading Method: Regular | General Education: FSPW

Prerequisite: ENGL101; or students who have taken courses with comparable content may contact the department. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

Contact department for information to register for this course.

ENGL393 **Technical Writing**

Credits: 3 | Grading Method: Regular | General Education: FSPW

Prerequisite: ENGL101; or students who have taken courses with comparable content may contact the department. Restriction: Must have earned a minimum of 60 credits.

The writing of technical papers and reports.

WB11	Nicole Cuffy Class time/details on ELMs	Seats (Total: 19) ONLINE
WB12	Mark Fitzgerald Class time/details on ELMs	Seats (Total: 19) ONLINE
WB13	Danuta Hinc Class time/details on ELMs	Seats (Total: 19) ONLINE

WB14	Roberto Leon Class time/details on ELMs	Seats (Total: 19) ONLINE
WB15	Michelle Moncrieffe Class time/details on ELMs	Seats (Total: 19) ONLINE
WB16	Konstantinos Pozoukidis Class time/details on ELMs	Seats (Total: 19) ONLINE
WB17	Dennis Winston Class time/details on ELMs	Seats (Total: 19) ONLINE
WB18	Catherine Bayly Class time/details on ELMs	Seats (Total: 19) ONLINE
WB19	Katherine Joshi Class time/details on ELMs	Seats (Total: 19) ONLINE
WB20	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL394 **Business Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSPW

Prerequisite: ENGL101; or students who have taken courses with comparable content may contact the department. Restriction: Must have earned a minimum of 60 credits.

Intensive practice in the forms of written communication common in the business world-letters, memos, short reports, and proposals. Principles of rhetoric and effective style.

WB11	Radford Skudrna Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL478B **Selected Topics in English and American Literature before 1800; Shakespeare and Film**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

WB11	Theodore Kaouk Class time/details on ELMs	Seats (Total: 20) ONLINE

ENGL699 Independent Study

Credits: 1-3 Grading Method: Regular, Audit

0101	Scott Wible Contact instructor or department for details.	Seats (Total: 5)
0104	Ralph Bauer Contact instructor or department for details.	Seats (Total: 10)
0105	Sharada Balachandran Orihuela Contact instructor or department for details.	Seats (Total: 5)
0106	Martha Nell Smith Contact instructor or department for details.	Seats (Total: 10)
0163	Neil Fraistat Contact instructor or department for details.	Seats (Total: 5)
0164	Tita Chico Contact instructor or department for details.	Seats (Total: 5)
0165	Theresa Coletti Contact instructor or department for details.	Seats (Total: 5)
0166	Kari Kraus Contact instructor or department for details.	Seats (Total: 5)
0167	Robert Levine Contact instructor or department for details.	Seats (Total: 5)
0168	Vessela Valiavitcharska Contact instructor or department for details.	Seats (Total: 5)
0186	Brian Richardson Contact instructor or department for details.	Seats (Total: 5)
0187	Jason Rudy Contact instructor or department for details.	Seats (Total: 5)
0188	Peter Mallios Contact instructor or department for details.	Seats (Total: 5)
0189	Jessica Enoch Contact instructor or department for details.	Seats (Total: 5)

I105	Lee Konstantinou	Seats (Total: 5)
	Contact instructor or department for details.	

ENME Engineering, Mechanical Winter 2020

ENME272 **Introduction to Computer Aided Design**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100; and must have completed or be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME 414 or ENME272.

Fundamentals of CAD, using solid modeling packages (Pro/E, SolidWorks, and Autodesk Inventor). Two and three dimensional drawing. Dimensioning and specifications. Introduction of CAD based analysis tools. Students will complete a design project.

0101	Mohammad Fazelpour	Seats (Total: 42)
	MTuWF 1:00pm - 4:00pm	KEB 2111

ENME361 **Vibration, Controls and Optimization I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220, ENES221, and MATH246; and (MATH206 or ENME202). Restriction: Must be in Engineering: Mechanical program.

Fundamentals of vibration, controls and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical description of system response, system stability, control and optimization. Optimal design of mechanical systems.

0101	Vincent Nguyen	Seats (Total: 50)
	MTuWThF 10:00am - 1:00pm	EGR 0108

ENME400 **Machine Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in ENME361. Restriction: Permission of ENGR-Mechanical Engineering department.

Design of mechanical elements and planar machines. Failure theories. Design of pressure vessels, joints, rotating elements, and transmission elements. Kinematic structures, graphical, analytical, and numerical analysis and synthesis of linkages, gear trains, and flywheels are covered.

0101	Chandrasekhar Thamire	Seats (Total: 87)
	MTuWThF 11:00am - 2:50pm	KEB 1110

ENME407 **Sustainability, Climate Change and Renewable Energy Systems**

Credits: 3 Grading Method: Regular

Prerequisite: PHYS260; or permission of ENGR-Mechanical Engineering department. Restriction: Students must have completed a minimum of 60 credits by the time they will enroll in this course.

Countries around the world are developing innovative and sustainable solutions that not only help to protect the environment from the threats of global climate change, but that also can improve human health and quality of life. In this course students will explore solutions to climate change, as well as geothermal and hydroelectric energy systems and their applications.

Contact department for information to register for this course.

ENME445 **Design for Reliability**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher.

Failure prevention, accident prevention, design requirements analysis, designing right the first time, high system reliability, software reliability, manufacturing defect prevention, life cycle costs reduction, design reviews, managing the design for reliability, design trustworthiness, product durability, and writing good specifications are covered.

WB11	Baldev Raheja	Seats (Total: 27)
	Class time/details on ELMs	ONLINE

ENME462 **Vibrations, Controls, and Optimization II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME351 and ENME361.

Continuation of ENME 361. Fundamentals of vibration, controls, and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical descriptions of system response, system stability, control and optimization. Optimal design of mechanical systems.

0101	Munther Hassouneh	Seats (Total: 40)
	MTuWThF 8:00am - 11:00am	CHE 2118

ENME488 **Special Problems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced problems in mechanical engineering with special emphasis on mathematical and experimental methods.

Contact department for information to register for this course.

ENME489K **Special Topics in Mechanical Engineering; Design for Safety**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

WB11	Baldev Raheja	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

ENME799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENME808 **Advanced Topics in Mechanical Engineering**

Credits: 2-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

ENME898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENME899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENPM Engineering, Professional Masters Winter 2020

ENPM808 **Advanced Topics in Engineering**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

CP01	George Syrmos Contact instructor or department for details.	Seats (Total: 10)
DE01	Instructor: TBA Class time/details on ELMs	Seats (Total: 1) ONLINE

ENRE Reliability Engineering Winter 2020

ENRE489K **Special Topics in Reliability Engineering; Design for Reliability**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in reliability engineering.

Pre-requisite: Junior standing.

ER01	Baldev Raheja MTuWThF 9:00am - 12:00pm	Seats (Total: 10) Location: TBA
RE01	Baldev Raheja MTuWThF 9:00am - 12:00pm	Seats (Total: 10) Location: TBA

ENRE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

ENRE899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0102	Mohammad Modarres Contact instructor or department for details.	Seats (Total: 10)

ENSE Systems Engineering Winter 2020

ENSE799 **Systems Engineering Thesis**

Credits: 1-6 Grading Method: Regular

The application of systems engineering concepts, principles, and theories will be applied to the Master's Thesis project. Project/thesis work will be defined and selected early in student's program and supervised by a university faculty mentor.

0102	John Baras Contact instructor or department for details.	Seats (Total: 1)
0116	Jeffrey Herrmann Contact instructor or department for details.	Seats (Total: 50)
0125	Gang Qu Contact instructor or department for details.	Seats (Total: 10)

ENST Environmental Science and Technology Winter 2020

ENST499 Special Topics in Environmental Science and Technology

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

0104	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 2)

ENTM Entomology Winter 2020

ENTM730 Plant Diagnostics

Credits: 3 Grading Method: Regular

The first step to managing pest and disease problems in plants is an accurate diagnosis. In this course, students will learn about the various biotic (living) and abiotic (nonliving) factors that can contribute to plant problems, and how to evaluate evidence and distinguish between these factors to arrive at an accurate diagnosis.

PLE1	Karen Rane	Seats (Total: 8)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Must be in Applied Entomology program. For permission to enroll, must be admitted into a term-based calendar graduate program. Contact oes@umd.edu.	

ENTM747 **Pollinator Health**

Credits: 3 Grading Method: Regular

Students will be given an overview of the importance of insect pollinators and threats to their populations. Emphasis will be placed on managed pollinators, particularly but not exclusively honey bees, where disease mitigation plans will be highlighted.

PLE1	Noble Noble	Seats (Total: 8)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the Professional Entomology Program.	

ENTM769 **Capstone: Scholarly Paper**

Credits: 3 Grading Method: Regular

An examination of the current literature on topics related to the field of applied entomology. The Capstone Course provides the opportunity to apply and integrate best practices based on current research in the form of a formal scholarly paper.

PLE1	Cerruti Hooks	Seats (Total: 1)
	Meets November 25, 2019 - February 19, 2020	
	Class time/details on ELMs	ONLINE
	Restricted to students in the Professional Entomology Program.	

EPIB Epidemiology and Biostatistics Winter 2020

EPIB301 **Epidemiology for Public Health Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Public Health Science program; or must be in Community Health program. And must have earned a minimum of 45 credits. Cross-listed with HLTH301. Credit only granted for: EPIB301 or HLTH301.

An examination of the discipline of epidemiology and its application to public health issues and practices, covering current epidemiological concepts and methods.

All course material is delivered online but the Midterm and Final Exam will be held in-person on Monday, January 13th and Wednesday, January 22nd, respectively, at the University of Maryland College Park Campus from 10:00am to 1:20pm. A limited number of students can take a synchronous long-distance exam as long as they make the appropriate arrangements with the course instructor prior to the start of winter term.

WB11	Natalie Slopen	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Restricted to College Park students in the Public Health Science major.	
WB12	Natalie Slopen	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Behavioral and Community Health major.	

EPIB798 **Independent Study**

Credits: 1-6 Grading Method: Regular, Audit

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

EPIB799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

EPIB898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	
0102	Dushanka Kleinman	Seats (Total: 5)
	Contact instructor or department for details.	

0103	Sunmin Lee Contact instructor or department for details.	Seats (Total: 5)
0104	Typhanye Dyer Contact instructor or department for details.	Seats (Total: 5)
0105	Hongjie Liu Contact instructor or department for details.	Seats (Total: 5)
0106	Quynh Nguyen Contact instructor or department for details.	Seats (Total: 5)
0108	Mei-Ling Lee Contact instructor or department for details.	Seats (Total: 5)
0109	Olivia Carter-Pokras Contact instructor or department for details.	Seats (Total: 5)
0120	Cher Dallal Contact instructor or department for details.	Seats (Total: 5)
0121	Xin He Contact instructor or department for details.	Seats (Total: 5)
0122	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0131	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0132	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0133	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0134	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0135	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0136	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)

EPIB899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0102	Dushanka Kleinman Contact instructor or department for details.	Seats (Total: 5)
0103	Sunmin Lee Contact instructor or department for details.	Seats (Total: 5)
0104	Typhanye Dyer Contact instructor or department for details.	Seats (Total: 5)
0105	Hongjie Liu Contact instructor or department for details.	Seats (Total: 5)
0106	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0108	Mei-Ling Lee Contact instructor or department for details.	Seats (Total: 5)
0109	Olivia Carter-Pokras Contact instructor or department for details.	Seats (Total: 5)
0120	Cher Dallal Contact instructor or department for details.	Seats (Total: 5)
0121	Xin He Contact instructor or department for details.	Seats (Total: 5)
0122	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0131	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0132	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)

0133	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0134	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0135	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0136	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)

FILM Film Studies Winter 2020

FILM245 **Film Form and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Cross-listed with ENGL245. Credit only granted for: ENGL245 or FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

WB11	Alexandria Nunn Class time/details on ELMs	Seats (Total: 25) ONLINE

FILM329D **Special Topics in National/International Cinemas; Action, Adventure, and Spectacle Film in World Cinema**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Crosslisted with FILM329D. Credit granted for SLLC368D or FILM329D. Critical study of some of the most important examples of action, adventure, and spectacle cinema from the international and transnational perspectives. Exploration of the historical, esthetic, generic, institutional, and political significance of these films.

WB11	Jason Kuo Class time/details on ELMs	Seats (Total: 20) ONLINE

FILM329G **Special Topics in National/International Cinemas; One Hundred Years of Hollywood and Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Cross-listed with HIST319W. Credit granted for HIST319W or FILM329G.

WB11	Saverio Giovacchini	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

FILM341 **Filming War Zones: Representations of Wars in Iraq & Chechnya**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with ARAB341. Credit only granted for: ARAB341 or FILM341.

Comparative study of ideological and cultural discourses in war films covering military conflicts in Iraq and Chechnya in late 20th-early 21st centuries. Materials include American, Middle Eastern, and Russian feature films and documentaries; theories of propaganda, ideology and popular culture. Taught in English.

WB11	Valerie Anishchenkova	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

FILM451 **Film Noir and American Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL245, FILM245, SLLC283, or FILM283; or permission of ARHU-College of Arts & Humanities. Restriction: Must not have completed ENGL428A (Summer 2006, Spring 2007, Summer 2009) or ENGL379Q (Fall 2009) or HHUM106 (Spring 2012), or ARTH389A (Spring 2012). Credit only granted for: FILM451, ENGL468D, ENGL428A ,ENGL379Q, HHUM106, or ARTH389A (Spring 2012). Formerly: ENGL428A and ENGL379Q.

Introduction to a variety of American movies made in the 1940s and 1950s whose dark themes and stark black-and-white lighting led to their identification as film noir.

WB11	Eric Zakim	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

FMSC186 **Family Law and Ethics in Assisted Reproduction**

Credits: 1 Grading Method: Regular

For students interested in studying the law, public health and/or family science, this course examines the cutting-edge law and ethics of assisted reproduction including the technologies of sperm and egg donation, in vitro fertilization, surrogacy, and reproductive organ transplants, and the impact on families.

WB11	Kerry Tripp, Nacie Grigsby	Seats (Total: 12)
	Class time/details on ELMs	ONLINE

FMSC190 **Man Up! Where Are The Fathers?**

Credits: 3 Grading Method: Regular General Education: DSHS, SCIS

An examination of changing fatherhood roles, health, and inequality in diverse families. Focus will be on masculinities and disparities among men by race and class; provider role expectations; and trauma and violence faced by men in contemporary society.

WB11	Kevin Roy	Seats (Total: 45)
	Class time/details on ELMs	ONLINE

FMSC260 **Couple Relationships**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Credit only granted for: FMSC260 or FMST260. Formerly: FMST260.

Couple relationships and their alternatives in contemporary dating, courtship and marriage.

For more information about this online class and requirements, click on this link and scroll down to the course.

WB11	Elise Resnick	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

FMSC310 **Maternal, Child and Family Health**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: FMSC310, FMSC410 or FMSC498A. Formerly: FMSC498A and FMSC410. Additional information: A comprehensive understanding of maternal, child, and family health, with additional emphasis on environmental health, needs assessment and evaluation, enabling students to more effectively address issues in the workplace.

Overview of the major issues in Maternal, Child, and Family Health in the U.S. and the world. The course will cover the social, political, environmental, and economic factors that shape the health of women, children, and families throughout the life course. It will employ the core disciplines of public health -- 1) epidemiology/biostatistics, 2) environmental health, 3) health policy and administration, and 4) social and behavioral health -- to examine these factors. The course introduces specific issues and interventions and places these issues and interventions within their broad sociohistorical context.

WB11	Edmond Shenassa	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

FMSC332 **Children in Families**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Prerequisite: PSYC100 or FMSC105. Credit only granted for: FMSC332 or FMST332. Formerly: FMST332.

A family life education approach to the study of children and families. Emphasis on the interaction of children with parents, siblings, extended kin, and the community.

WB11	C Conway	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

FMSC341 **Personal and Family Finance**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: FMSC341 or FMST341. Formerly: FMST341.

Individual and family financial strategies with emphasis on financial planning, savings, investments, insurance, income taxes, housing, and use of credit. Planning, analyzing, and controlling financial resources to resolve personal/family financial problems and to attain financial security.

For more information about this online class and requirements, click on this link and scroll down to the course.

WB11	William Knight	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

FMSC383 **Delivery of Human Services to Families**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FMSC330. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC383 or FMST383. Formerly: FMST383.

Processes of service delivery with special emphasis upon relationships among managers, service providers and clients. The impact of human service systems on families.

http://oes.umd.edu/winter-term/courses-workshops/course-highlights/fmsc

For more information about this online class and requirements, click on this link and scroll down to the course.

WB11	Allyson Pakstis	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

FMSC460 **Violence in Families**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Prerequisite: SOCY100, SOCY105, or PSYC100. Credit only granted for: FMSC460 or FMST460. Formerly: FMST460.

Theories of child, spouse, and elder abuse in the family setting. Emphasis on historical, psychological, sociological and legal trends relating to physical, emotional, and sexual abuse. Introduction to methods for prevention and remediation.

For more information about this online class and requirements, click on this link and scroll down to the course.

WB11	Christine Schull	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

FMSC487 **Family Law**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Designed for students interested in studying the law, public health, and family science, this course provides students with a general overview of family law and the impact on healthy families. The course also includes the study of cutting-edge issues such as marriage equality, assisted reproduction and ethical issues that may arise.

For more information about this online class and requirements, click on this link and scroll down to the course.

WB11	Kerry Tripp	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

FMSC654 **Clinical Marriage and Family Therapy Practice**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: FMSC651. Restriction: Must be in Couple and Family Therapy (Master's) program. Credit only granted for: FMSC654 or FMST654. Formerly: FMST654.

Application of theory and technique to the clinical practice of marriage and family therapy. Emphasis on case management and clinic administration. Includes completion of 12 successive months and 500 hours of supervised, direct client contact with couples, families, and individuals from an integrative family systems perspective.

0101	Patricia Barros M 8:00am - 4:30pm Contact instructor or department for details.	Seats (Total: 15) Location: TBA

FMSC689 **Research Internship**

Credits: 1-3 Grading Method: Regular

Research experience resulting in a scholarly article suitable for publication in a peer-reviewed journal.

Contact department for information to register for this course.

FMSC698 **Advanced Topics in Family Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Arranged group study on specific topic which may vary from term to term.

Contact department for information to register for this course.

FMSC698A **Advanced Topics in Family Science; Trauma and Addiction**

Credits: 3 Grading Method: Regular, Audit

Arranged group study on specific topic which may vary from term to term.

0101	Wendy Wilcox Contact instructor or department for details.	Seats (Total: 15)

FMSC698P **Advanced Topics in Family Science; Play Therapy**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Arranged group study on specific topic which may vary from term to term.

Contact department for information to register for this course.

FMSC698V **Advanced Topics in Family Science; Violence in Families**

Credits: 3 Grading Method: Regular, Audit

Arranged group study on specific topic which may vary from term to term.

WB11	Christine Schull	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

FMSC699 **Independent Study**

Credits: 1-6 Grading Method: Regular, Audit

Contact department for information to register for this course.

FMSC789 **Non-Thesis Research**

Credits: 1-3 Grading Method: Regular, Audit

Non-thesis option research papers.

0127	Mona Mittal	Seats (Total: 2)
	Contact instructor or department for details.	

FMSC799 **Master's Thesis Research; Master Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

FMSC879 **Preparing Future Faculty and Professionals Seminar**

Credits: 1 Grading Method: Regular, Audit

Development of skills necessary to obtain and succeed in academic and non-academic positions in family science and public health. Topics include: career mapping, networking, teaching/teaching portfolios, independent research, publishing, grant writing, program and policy evaluation, consulting, job search, interviewing and negotiation, mentoring, diversity, work-family balance, and ethical issues in the workplace. Periodic visits to universities and government/nonprofit employers.

0101	Sandra Quinn	Seats (Total: 10)
	W 1:00pm - 5:10pm	Location: TBA

GEOG Geographical Sciences Winter 2020

GEOG140 **Natural Disasters: Earthquakes, Floods, and Fires**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNS, SCIS

Catastrophic Environmental Events (CCE) that are becoming more common in this time of global environmental change and it is essential that today's students be equipped with the knowledge and skills to be leaders as we, as a society, understand the upheaval that these CCEs are causing. Students will examine how CEEs shape human society and ecosystem from the interdisciplinary perspective afforded by the field of Geography. Students will use the latest geographic science concepts and techniques in exploring these events. Using satellite imagery they will gain a multi-scale perspective of the ecological and societal aspects of the events.

WB11	Joshua Wayland	Seats (Total: 65)
	Class time/details on ELMs	ONLINE

GEOG202 **Introduction to Human Geography**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SB	General Education: DSHS, DVCC

Introduction to what geographers do and how they do it. Systematic study of issues regarding social and cultural systems from a global to a local scale. Looks at the distribution of these variables and answers the question "Why here, and not there"?

WB11	Jennifer Hinojosa	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

GEOG212 **Career Planning for Geographical Sciences, GIS, and ENSP Majors**

Credits: 1	Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Geography; GEOG-GIS & Computer Cartography).

Increase student knowledge of professional development opportunities in Geographical Sciences through classroom activities and invited speakers, and to build awareness of career development tools and strategies.

WB11	Amanda Hall Class time/details on ELMs	Seats (Total: 40) ONLINE	Lab
WB12	Amanda Hall Class time/details on ELMs *Section open to all majors.*	Seats (Total: 20) ONLINE	Lab

GEOG306 **Introduction to Quantitative Methods for the Geographic Environmental Sciences**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

Essentials in the quantitative analysis of spatial and other data, with a particular emphasis on statistics and programming. Topics include data display, data description and summary, statistical inference and significance tests, analysis of variance, correlation, regression, and some advanced concepts, such as matrix methods, principal component analysis, and spatial statistics. Students will develop expertise in data analysis using advanced statistical software.

There is a $40.00 lab fee with this course. This course will be taught online at http://elms.umd.edu using Live Classroom software.

WB11	Yuhan Rao MTuWTh 6:00pm - 9:30pm	Seats (Total: 30) ONLINE

GEOG328B **Topics in Regional Geography; Geography of the Southern Caribbean**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Selected topics in regional geography.

Contact department for information to register for this course.

GEOG330 **As the World Turns: Society and Sustainability in a Time of Great Change**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP, SCIS

Credit only granted for: GEOG330, GEOG360, or GEOG362. Formerly: GEOG362.

Cultural geography course on society and sustainability. Culture is the basic building block that is key to sustainability of societies. Course will cover sustainability of societies on different scales, examining local, regional, and worldwide issues. Sustainability will be examined as a key element of environmental sustainability. How societies adjust to rapid world change will be examined as a positive and/or negative factor in sustainability.

WB11	Rachel Berndtson Class time/details on ELMs	Seats (Total: 50) ONLINE
WB12	Rachel Lamb Class time/details on ELMs	Seats (Total: 50) ONLINE

GEOG340 **Geomorphology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Survey of landform types and role of processes in their generation. Frequency of occurrence and implications for land utilization. Emphasis on coastal, fluvial, and glacial landforms in different environmental settings. Landform regions of Maryland.

0101	Keith Yearwood MTuWTh 1:00pm - 4:30pm	Seats (Total: 20) LEF 1171

GEOG372 **Remote Sensing**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Principles of remote sensing in relation to photographic, thermal infrared and radar imaging. Methods of obtaining quantitative information from remotely-sensed images. Interpretation of remotely-sensed images emphasizing the study of spatial and environmental relationships.

There is a $40.00 lab fee with this course.

WB11	Michael Humber MTuWTh 9:00am - 1:00pm	Seats (Total: 25) ONLINE

GEOG373 **Geographic Information Systems**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Characteristics and organization of geographic data; creation and use of digital geospatial databases; metadata; spatial data models for thematic mapping and map analysis; use of geographic information system in society, government, and business. Practical training with use of advanced software and geographic databases.

There is a $40.00 lab fee with this course. This course will be taught online athttp://elms.umd.edu using Live Classroom software.

0101	Naijun Zhou MTuWTh 9:30am - 11:30am MTuWTh 11:30am - 1:30pm	Seats (Total: 45) LEF 2166 LEF 1136	 Lab
WB11	Zhiyue Xia MTuWTh 6:00pm - 9:30pm	Seats (Total: 45) ONLINE	

GEOG384 **Internship in Geography I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and (ENGL393 or ENGL390). Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

I101	Ronald Luna Contact instructor or department for details.	Seats (Total: 10)
I102	Amanda Hall Contact instructor or department for details.	Seats (Total: 5)

GEOG385 **Internship in Geography II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and must have completed a Junior (Professional) English course. Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional-level activities, demands, opportunities. Placement at a public agency, nonprofit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

I101	Ronald Luna Contact instructor or department for details.	Seats (Total: 5)
I102	Amanda Hall Contact instructor or department for details.	Seats (Total: 5)

GEOG473 **Geographic Information Systems and Spatial Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG306 and GEOG373; or students who have taken courses with comparable content may contact the department. Credit only granted for: GEOG473 or GEOG482. Formerly: GEOG482.

Analytical uses of geographic information systems; data models for building geographic data bases; types of geographic data and spatial problems; practical experience using advanced software for thematic domains such as terrain analysis, land suitability modeling, demographic analysis, and transportation studies.

There is a $40.00 lab fee with this course. This course will be taught online at http://elms.umd.edu using Live Classroom software.

WB11	Naijun Zhou MTuWTh 6:30pm - 9:40pm	Seats (Total: 30) ONLINE

GEOG498 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study under individual guidance.

Contact department for information to register for this course.

GEOG646 **Programming for GIS**

Credits: 3 Grading Method: Regular, Audit

Additional information: This class is recommended for all MSGIS students who have no prior computer programming background as well as those who wish to have additional practice. The skills learned in this class will be useful for more advanced courses such as GEOG656 (Programming and Scripting for GIS), GEOG657 (Web Programming), and GEOG650 (Mobile GIS).

An introduction to computer programming using Python and web programming languages. It is required for students in the MSGIS program before they enroll in more advanced programming courses (GEOG656 and GEOG657). This course teaches students the fundamentals concepts of computer science. Students will learn about the components of a computer program such as data management, conditional statements, iterative statements, and file processing. Students will develop programs and web apps for the purpose of automating tasks and assisting with data analysis.

GI01	Jonathan Resop **Meets November 25, 2019 - February 19, 2020** M 5:30pm - 8:00pm Tu 5:30pm - 7:30pm	Seats (Total: 25) LEF 1220 LEF 1166	 Lab

GEOG651 **Spatial Statistics**

Credits: 3 Grading Method: Regular

Prerequisite: GEOG615; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in Graduate Certificate: Professional Studies-Geospatial Information Sciences.

This course is about quantitative analysis of spatial data. It is intended to provide a broad survey of various methods of exploratory statistical data analysis most useful in environmental and social sciences. The course is a mix of theory, methods, and applications geared towards helping students: (1) develop an understanding of the important theoretical concepts in spatial data analysis; and (2) gain practical experience in application of spatial statistics to a variety of social and environmental problems using advanced statistical software.

For permission to enroll, contact geog-gis@umd.edu. Students must pay a $40.00 lab fee.

Click here for program information.

GI01	Eunjung Lim **Meets November 25, 2019 - February 19, 2020** W 5:30pm - 8:00pm Th 5:30pm - 7:30pm	Seats (Total: 50) LEF 1166 LEF 1136	 Lab
GI02	Eunjung Lim **Meets November 25, 2019 - February 19, 2020** W 5:30pm - 8:00pm Th 5:30pm - 7:30pm	Seats (Total: 50) LEF 1166 LEF 1136	 Lab

GEOG653 **Spatial Analysis**

Credits: 3 Grading Method: Regular

Prerequisite: GEOG579 or GEOG506; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in the Geospatial Information Sciences (Graduate Certificate) program.

Methods of spatial analysis including measuring aspects of geometric features and identifying spatial patterns of geospatial objects that are represented as point, line, network, areal data, and 3-D surfaces.

For permission to enroll, contact geog-gis@umd.edu. Students must pay a $40.00 lab fee.

Click here for program information.

GI03	Jianguo Ma	Seats (Total: 15)	
	Meets November 25, 2019 - February 19, 2020		
	Tu 12:30pm - 3:00pm	Location: TBA	
	Tu 3:00pm - 5:00pm	Location: TBA	Lab

GEOG660 **Advanced Remote Sensing Using Lidar**

Credits: 3 Grading Method: Regular

Prerequisite: GEOG652. Recommended: GEOG656 and GEOG654. Credit only granted for: GEOG660 or GEOG788G. Formerly: GEOG788G.

Lidar, also known as laser scanning, is an active remote sensing tool that can produce high-resolution point clouds. Lidar is being applied to problems such as terrain modeling, biomass estimation, change detection, feature extraction, and measuring tree canopy. Topics covered are fundamentals of lidar, current developments in lidar technology, and different applications where lidar is being used. Students will get hands-on learning about lidar data management, processing, and analysis.

For permission to enroll, contact geog-gis@umd.edu.

Click here for program information.

GI01	Rejanne Le Bivic	Seats (Total: 50)	
	Meets November 25, 2019 - February 19, 2020		
	W 5:30pm - 8:00pm	LEF 1171	
	Th 5:30pm - 8:00pm	LEF 1138	Lab

GI02	Rejanne Le Bivic	Seats (Total: 50)	
	Meets November 25, 2019 - February 19, 2020		
	W 5:30pm - 8:00pm	LEF 1171	
	Th 5:30pm - 8:00pm	LEF 1138	Lab

GEOG664 GEOINT Systems and Platforms

Credits: 3 Grading Method: Regular

There are numerous systems and platforms that support the collection, visualization and dissemination of Geospatial Intelligence (GEOINT). Platforms such as satellites and aircraft carry sensors systems that can detect both physical and man-made objects on the earth. Ground-based processing systems are used to analyze and visualize sensor data, and also to create and disseminate GEOINT products that guide decision-making. In this course you will learn how to develop and implement source-to-screen GEOINT workflows, and will understand how to use a system of systems approach to describe the programmatic and technical strengths and weaknesses of many different GEOINT systems and platforms.

GI01	Micah Brachman	Seats (Total: 15)	
	Meets November 25, 2019 - February 19, 2020		
	W 5:30pm - 8:00pm	LEF 1106	
	Th 5:30pm - 8:00pm	LEF 1106	Lab

GEOG665 Algorithms for Geospatial Intelligence Analysis

Credits: 3 Grading Method: Regular

Recommended: Students taking the course must be familiar with data structures, basic GIS and RS concepts, and demonstrate basic understanding of using GIS and RS software. Restriction: Permission of BSOS-Geography department; or must be enrolled in Geographical Sciences MPS or graduate certificate program.

Exposes students to fundamental algorithms in geospatial intelligence and their application in methodological and substantive domains, and their implementation in computer programs and software systems. Current topics include spatial and space-time analysis, cartographic transformations, data compression and reduction, MapReduce and distributed data access, genetic algorithms, clustering and indexing algorithms, filtering algorithms, geometry and tessellation algorithms, routing algorithms, localization algorithms, and complexity and scaling. Implementation of algorithms will be explored through pseudo-code and a variety of scripting, data access, and programming languages.

GI01	Ruibo Han	Seats (Total: 20)	
	Meets November 25, 2019 - February 19, 2020		
	M 5:30pm - 8:00pm	LEF 1106	
	Tu 5:30pm - 8:00pm	LEF 1106	Lab

GEOG677 **Internet GIS**

Credits: 3 Grading Method: Regular, Audit

This course is designed to: (1) introduce the concepts and theories that are related to an increasingly important technology b Web GIS; (2) introduce various technologies or techniques for creating, analyzing, and disseminating GIS data and services via the Web. Students will be required to practice almost all of the Web GIS tools including client side mapping frameworks like the ArcGIS API for JavaScript, Mapbox, Leaflet, Google Map API, OpenLayers; server side systems including ArcGIS Enterprise (Server/Portal/DataStore), GeoServer; data formats for the web WMS, WFS, Feature Services, MapServices. Students will also be exposed to the experience of working with the Cloud environment such as AWS EC2 and Azure.

For permission to enroll, contact geog-gis@umd.edu. Students must pay a $40.00 lab fee.

Click here for program information.

GI01	Jon Nordling	Seats (Total: 50)	
	Meets November 25, 2019 - February 19, 2020		
	M 5:30pm - 8:00pm	TYD 2108	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
GI02	Jon Nordling	Seats (Total: 50)	
	Meets November 25, 2019 - February 19, 2020		
	M 5:30pm - 8:00pm	TYD 2108	
	Tu 5:30pm - 8:00pm	ONLINE	Lab

GEOG789 **Independent Readings**

Credits: 1-3 Grading Method: Regular, Audit

Independent reading as arranged between a graduate faculty member and graduate student.

Contact department for information to register for this course.

GEOG899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0101	Ralph Dubayah	Seats (Total: 5)
	Contact instructor or department for details.	

GEOL Geology Winter 2020

GEOL123 **Causes and Consequences of Global Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS, SCIS

Cross-listed with AOSC123. Credit only granted for: AOSC123, GEOG123, GEOL123, or METO123.

Study of the major components of Earth's climate system and climate change history. Discussion of 21st century climate change prediction, mitigation and adaptation efforts.

WB11	Jeffrey Henrikson	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

GEOL799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

0101	Instructor: TBA	Seats (Total: 1)
	Contact instructor or department for details.	

GEOL899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0107	James Farquhar	Seats (Total: 1)
	Contact instructor or department for details.	

GVPT Government and Politics Winter 2020

GVPT170 **American Government**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

A comprehensive study of national government in the United States.

WB11	Margaret McWeeney	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

GVPT200 **International Political Relations**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DVUP

A study of the major factors underlying international relations, the causes of conflict and cooperation among international actors, the role of international institutions, the interactions of domestic and foreign policies, and major issues in security, economy and the environment.

WB11	Jiun-Da Lin	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

GVPT241 **The Study of Political Philosophy: Ancient and Modern**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Examines some of the salient continuities and breaks between the ancient and modern traditions in Western political philosophy.

WB11	James Glass	Seats (Total: 75)
	Class time/details on ELMs	ONLINE

GVPT306 **Global Environmental Politics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations) ; or permission of BSOS-Government & Politics department.

Focus on three processes of international environmental policy development- identifying problems, negotiating solutions, and implementing agreements- through a range of case studies, including global climate change.

WB11	Jennifer Wallace	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

GVPT309D **Topics in International Relations; Dynamics of Conflict and Conflict Resolution**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in international relations.

WB11	Marjorie Breslawski	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

GVPT309F **Topics in International Relations; Chile: Chilean Culture, Democracy and Social Change**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in international relations.

Contact department for information to register for this course.

GVPT358K **Study Abroad Seminar in Political Science; From the Pampas to the Andes: Political Culture and Local Politics in Argentina**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358T **Study Abroad Seminar in Political Science; Human Rights in Latin America**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358V **Study Abroad Seminar in Political Science; Neoliberalism and Social Movements in Latin America**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT388C **Topical Investigations; Foreign Policy Decision Making**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

Contact department for information to register for this course.

GVPT388T **Topical Investigations; Germany in the New Europe: Politics, Business, and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

Contact department for information to register for this course.

GVPT409J **Seminar in International Relations and World Politics; Multi-Track Diplomacy and Conflict Transformation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

This course aims to develop the concepts and professional skills needed to facilitate transformation of complex societal conflicts, including those rooted in ethnic, religious or cultural tensions.

WB11	John Davies	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

GVPT808J **Selected Topics in Functional Problems in International Relations; Multi-Track Diplomacy and Conflict Transformation**

Credits: 3 Grading Method: Regular, Audit

An examination of the major substantive issues in contemporary international relations.

This course aims to develop the concepts and professional skills needed to facilitate transformation of complex societal conflicts, including those rooted in ethnic, religious or cultural tensions.

WB11	John Davies	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

GVPT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

HEBR Hebrew — Winter 2020

HEBR298O **Jewish Language America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVCC

Cross-listed with: JWST219O. Credit only granted for: JWST219O or HEBR298O.

Credit granted for JWST219O or HEBR298O. Also offered as JWST219O. Students will explore the history and current use of a variety of and dialects in the American Jewish community. They will analyze how language affects identity and relationships to the majority group, as well as within the cultural group. Taught in English.

WB11	Avital Karpman	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

HESI Higher Ed, Student Affairs, and International Ed Policy — Winter 2020

HESI221 **Leadership, Power and Privilege**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Critical analysis of social issues, contemplative practice, and dialogue are used to examine how power and privilege operate at individual, institutional, and societal levels to impact leadership perceptions and behaviors.

Students will be exposed to concepts of power and privilege within collective and inclusive leadership frameworks. Course material will apply diverse learning methods to increase the student's awareness of power and privilege and how these concepts operate at the individual, institutional, and societal levels to impact our leadership perceptions and behaviors. Students will be asked to explore the way they perform and understand leadership through critical analysis of social issues, assignments, contemplative practice, and dialogue. Also, it invites students to question their own assumptions about the world in which we live, to acknowledge how their different experiences have shaped them, to be aware of how they perceive others and are perceived by others, and to recognize how these dynamics intersect with the leadership process.

WB11	Genevieve Hiltebrand	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

HESI318A **Applied Contextual Leadership; Leadership in Film**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

This online course asks students to think about leadership in a new way by finding leadership lessons from film. This course will ask students to watch a number of films (including some documentaries) and connect each of the films to leadership readings and personal experience.

WB11	Ashley Hixson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

HESI418E **Special Topics in Leadership; Strengths-Based Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The special topics and leadership course will address a single topic related to leadership through the semester. In-depth study and analysis on the topic will be the basis for the course. Topics include gender and leadership, ethics and leadership, and culture and leadership. Leadership will serve as the foundation in the course.

Our goal is effective leadership practice through emphasis on strengths development. Using the Gallup Organization's Strengths Finder Assessment, students will explore their personal strengths and learn how to build strengths-based teams for group leadership. Themes of teamwork, problem-solving, coaching others, and conflict resolution are woven throughout the course.

WB11	Noel Kuriakos	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

HESI739A **Higher Education, Student Affairs, & International Education Policy Study Abroad; Higher Educaiton in the Ghanian Context**

Credits: 3 Grading Method: Regular, Audit

An exploration of topics related to higher education, student affairs, & international education policy abroad. Participants engage in tenets associated with University of Maryland Education Abroad programs.

Contact department for information to register for this course.

HESP Hearing and Speech Sciences Winter 2020

HESP386 **Experiential Learning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of BSOS-Hearing & Speech Sciences department.

Students will have the opportunity observe and/or participate in therapy activities provided by a speech-language pathologist or audiologist in this experiential learning course.

0116	Nan Ratner	Seats (Total: 10)
	Contact instructor or department for details.	

HESP499 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP615 **Counseling in Communicative Disorders**

Credits: 3 Grading Method: Regular, Audit

Recommended: HESP400 and HESP411.

Introduction to the application of counseling principles and methodologies for working with individuals with communication disorders and their families. The role of the audiologist and speech language pathologist as counselors will be explored. Class content will focus on theoretical approaches and techniques to counseling from the fields of psychology, social work, and family the family therapy. The application of counseling in the diagnostic process as well as treatment of a wide variety of communication disorders will be highlighted throughout the course.

0101	Lisa Rickard	Seats (Total: 22)
	MTuWTh 9:30am - 12:55pm	IRB 2207

HESP638 **Research Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Analysis, synthesis and integration of knowledge related to current research or clinical issues in human communication and its related disorders.

Contact department for information to register for this course.

HESP639 **Special Topics in Hearing and Speech Sciences**

(Perm req)

Credits: 1-2 Grading Method: Regular, Audit

Intensive coverage of selected topics of current interest.

Class will be offered at John Hopkins Center in Baltimore, the exact times & dates will be provided later.

0101	Kimberly Webster, Rina Abrams	Seats (Total: 17)
	Contact instructor or department for details.	
	Course meeting dates, times, and locations are as follows: 1/6, 1/7, 1/13, 1/14: 7:30AM-1:30PM, JHOC (John's Hopkins Outpatient Ce nter) Room 5060 (5th floor, end of hallway) 1/8: 7-8:30PM, Johns Hopkins Greenspring Station, Pavillion 2, conferenc e room (10753 Falls Rd, Lutherville, 21093) 1/9: 7-8:30AM, JHOC 6th floor conference room 6150	

HESP708 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Individual research projects under guidance of a faculty member.

Contact department for information to register for this course.

HESP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

HESP849 **Capstone Research Project I**

Credits: 2 Grading Method: Regular

First of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves individual study and/or supervised lab work with mentor, preparation of research proposal (including IRB protocol if required), and attendance at Capstone Research Project Workshop.

Contact department for information to register for this course.

HESP859 **Capstone Research Project II**

Credits: 1-2 Grading Method: Regular

Second of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves final data collection, analysis and presentation of results or completion of scholarly paper under the direction of the faculty mentor.

Contact department for information to register for this course.

HESP889 **Doctoral Candidacy Research**

Credits: 1-3 Grading Method: Regular

Doctoral candidacy paper research

Contact department for information to register for this course.

HESP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

HIST History Winter 2020

HIST137 **Pursuits of Happiness: Ordinary Lives in the American Revolution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH General Education: DSHS, SCIS

Credit only granted for: HIST289E or HIST137. Formerly: HIST289E.

Investigates the search for personal fulfillment unleashed by the American Revolution; explores the many different meanings ascribed to the notion of the "pursuit of happiness" by Americans in the early national period.

WB11	Richard Bell	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HIST200 **Interpreting American History: Beginnings to 1877**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH General Education: DSHS, DSHU

Credit only granted for: HIST156 or HIST200. Formerly: HIST156.

The United States from colonial times to the end of the Civil War. Establishment and development of American institutions.

WB11	Nicole Mahoney	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HIST201 **Interpreting American History: From 1865 to the Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH General Education: DSHS, DSHU, DVUP

Credit only granted for: HIST157 or HIST201. Formerly: HIST157.

The United States from the end of the Civil War to the present. Economic, social, intellectual, and political developments. Rise of industry and emergence of the United States as a world power.

WB11	Robert Chiles	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HIST219K **Special Topics in History; London and the British Empire, 1500-1850**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

HIST319W **Special Topics in History; One Hundred Years of Hollywood and Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with FILM329G. Credit granted for HIST319W or FILM329G.

WB11	Saverio Giovacchini	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HIST328X **Selected Topics in History; Behind "A Game of Thrones": Modern Medievalism in Popular Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

George R.R. Martin says that the characters of "A Game of Thrones" inhabit a world based on the European Middle Ages. This course explores that world, examines the real cultures and events that inspired it, and considers the complex question of how modern depictions of the past reflect our own beliefs, interests, and concerns.

WB11	Courtney Dahlke	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HIST329J **Special Topics in History; Women and Gender in the Roman World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course will study how women were perceived in the Roman world,the experiences of women, and how gender was understood in Roman society. We will also examine the dynamics of femininity and masculinity in the ancient world, and how conceptions of gender informed cultural and social norms in ancient Rome.

WB11	Dustin Cranford	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HIST329K **History of Rock and Roll, 1950 - 2000**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH

This inter-disciplinary course will trace the development of American rock 'n' roll and popular music in the second half of the 20th century. Popular music will be studied both in terms of what it sounds like, and in terms of what it meant to the societies in which it was made and consumed. Special attention will be paid to the role of African-American cultural influences, as well as contributions made by European (mainly British) performers over the years.

WB11	Andrew Kellett	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HIST329N **Special Topics in History; Chile: Chilean Culture, Democracy and Social Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

HIST357 **Recent America: 1945-Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST201, HIST211, HIST213, HIST222, HIST255, or HIST275; or must have completed HIST157; or permission of instructor.

American history from the inauguration of Harry S. Truman to the present with emphasis upon politics and foreign relations, but with consideration of special topics such as radicalism, conservatism, and labor.

WB11	Howard Smead	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HLSA Health Services Administration Winter 2020

HLSA300 **Introduction to Health Policy and Services**

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must be in Public Health Science program; and must have earned a minimum of 60 credits. Credit only granted for: SPHL498P or HLSA300. Formerly: SPHL498P.

A multidimensional view of public health policy and services. Through interactive discussion of assigned readings, team-based learning, and supplementary lecture, students will learn about the nature of and development of policy, public health policy, and financing and delivery of health care services. This course will place a significant emphasis on a team-based learning approach to understanding the health care system and health care reform.

WB11	Daniel Marthey	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

HLSA688 **Independent Study**

Credits: 1-6 Grading Method: Regular, Audit

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

I102	Lori Simon-Rusinowitz	Seats (Total: 5)
	Contact instructor or department for details.	
I103	Neil Sehgal	Seats (Total: 5)
	Contact instructor or department for details.	
I104	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	
I105	Michel Boudreaux	Seats (Total: 5)
	Contact instructor or department for details.	
I106	Dylan Roby	Seats (Total: 5)
	Contact instructor or department for details.	
I107	Luisa Franzini	Seats (Total: 5)
	Contact instructor or department for details.	
I108	Stephen Thomas	Seats (Total: 5)
	Contact instructor or department for details.	
I109	Jie Chen	Seats (Total: 5)
	Contact instructor or department for details.	

I110	Eva DuGoff Contact instructor or department for details.	Seats (Total: 5)
I111	Kellee White Contact instructor or department for details.	Seats (Total: 5)

HLSA778 **Internship in Public Health**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Internship providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Contact department for information to register for this course.

HLSA785 **Internship in Public Health**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of SPHL-Health Services Administration department. Credit only granted for: HLSA785 or HLSA778.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

I102	Lori Simon-Rusinowitz Contact instructor or department for details.	Seats (Total: 5)
I103	Neil Sehgal Contact instructor or department for details.	Seats (Total: 5)
I104	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
I105	Michel Boudreaux Contact instructor or department for details.	Seats (Total: 5)
I106	Dylan Roby Contact instructor or department for details.	Seats (Total: 5)
I107	Luisa Franzini Contact instructor or department for details.	Seats (Total: 5)

I108	Stephen Thomas Contact instructor or department for details.	Seats (Total: 5)
I109	Jie Chen Contact instructor or department for details.	Seats (Total: 5)
I110	Eva DuGoff Contact instructor or department for details.	Seats (Total: 5)
I111	Kellee White Contact instructor or department for details.	Seats (Total: 5)

HLSA786 **Capstone Project in Public Health**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of SPHL-Health Services Administration department.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

I102	Lori Simon-Rusinowitz Contact instructor or department for details.	Seats (Total: 5)
I103	Neil Sehgal Contact instructor or department for details.	Seats (Total: 5)
I104	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
I105	Michel Boudreaux Contact instructor or department for details.	Seats (Total: 5)
I106	Dylan Roby Contact instructor or department for details.	Seats (Total: 5)
I107	Luisa Franzini Contact instructor or department for details.	Seats (Total: 5)
I108	Stephen Thomas Contact instructor or department for details.	Seats (Total: 5)
I109	Jie Chen Contact instructor or department for details.	Seats (Total: 5)

I110	Eva DuGoff Contact instructor or department for details.	Seats (Total: 5)
I111	Kellee White Contact instructor or department for details.	Seats (Total: 5)

HLSA799 Master's Thesis Research

Credits: 1-6 Grading Method: Regular, Sat-Fail

0103	Neil Sehgal Contact instructor or department for details.	Seats (Total: 5)
0105	Michel Boudreaux Contact instructor or department for details.	Seats (Total: 5)
0106	Dylan Roby Contact instructor or department for details.	Seats (Total: 5)
0107	Luisa Franzini Contact instructor or department for details.	Seats (Total: 5)

HLSA898 Pre-Candidacy Research

Credits: 1-8 Grading Method: Regular, Sat-Fail

I102	Lori Simon-Rusinowitz Contact instructor or department for details.	Seats (Total: 10)
I103	Neil Sehgal Contact instructor or department for details.	Seats (Total: 10)
I104	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
I105	Michel Boudreaux Contact instructor or department for details.	Seats (Total: 10)
I106	Dylan Roby Contact instructor or department for details.	Seats (Total: 10)
I107	Luisa Franzini Contact instructor or department for details.	Seats (Total: 10)

I108	Stephen Thomas Contact instructor or department for details.	Seats (Total: 10)
I109	Jie Chen Contact instructor or department for details.	Seats (Total: 10)
I110	Eva DuGoff Contact instructor or department for details.	Seats (Total: 10)
I111	Kellee White Contact instructor or department for details.	Seats (Total: 10)

HLSA899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

I102	Lori Simon-Rusinowitz Contact instructor or department for details.	Seats (Total: 10)
I103	Neil Sehgal Contact instructor or department for details.	Seats (Total: 10)
I104	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
I105	Michel Boudreaux Contact instructor or department for details.	Seats (Total: 10)
I106	Dylan Roby Contact instructor or department for details.	Seats (Total: 10)
I107	Luisa Franzini Contact instructor or department for details.	Seats (Total: 10)
I108	Stephen Thomas Contact instructor or department for details.	Seats (Total: 10)
I109	Jie Chen Contact instructor or department for details.	Seats (Total: 10)
I110	Eva DuGoff Contact instructor or department for details.	Seats (Total: 10)

I111	Kellee White	Seats (Total: 10)
	Contact instructor or department for details.	

HLTH Health Winter 2020

HLTH106 **Drug Use and Abuse**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An interdisciplinary analysis of contemporary drug issues and problems. The course will examine physiological, psychological, social, philosophical, historical, legal and health aspects of drug use and abuse. Special attention will be focused on those general motivations for drug use that attend life on the college campus.

WB11	Munjireen Sifat	Seats (Total: 60)
	Class time/details on ELMs	ONLINE

HLTH124 **Introduction to Behavioral and Community Health**

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

Required of first semester Community Health majors to expose them to introductory-level concepts within the field of behavioral and community health as well as the Community Health degree program. Includes discussion on the delivery of behavioral and community health at the local, state, national, and global levels; career opportunities in the diverse sectors of the community health field; undergraduate programmatic information; and strategies for student success.

For the winter, restriction is not in effect. Students of all majors are eligible to register and take this course.

WB11	M Reynolds	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HLTH140 **Personal and Community Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

WB11	James Butler	Seats (Total: 60)
	Class time/details on ELMs	ONLINE

HLTH366 **Behavioral and Community Issues in Public Health**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: HLTH130, HLTH230, PSYC100, SOCY100, SOCY105, or ANTH260. Restriction: Must be in Public Health Science program; or permission of SPHL-Behavioral & Community Health department. And must have earned a minimum of 45 credits. Additional information: This course will initially be restricted to Public Health Science (PHSC) majors, but could ultimately be opened to other majors, particularly those in HLTH.

The exploration of how social and behavioral science theories and public health concepts and methods can be applied to both the health-illness experience and community interventions.

WB11	Evelyn King-Marshall	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

HLTH377 **Human Sexuality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

WB11	Elizabeth Aparicio	Seats (Total: 200)
	Class time/details on ELMs	ONLINE

HLTH386 **Experiential Learning**

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of SPHL-Behavioral & Community Health department. Restriction: Junior standing or higher.

0101	Bradley Boekeloo	Seats (Total: 5)
	Contact instructor or department for details.	

HLTH399 **Community Health Field Work**

(Perm req) Credits: 1-6 Grading Method: Regular

Students will gain practical experience under conditions conducive to educational and professional development. The internship is a supervised period of community/public health activities, carried out in a relevant professional organization, that emphasizes the application of theory and previous coursework.

0101	Tracy Kennedy	Seats (Total: 10)
	Contact instructor or department for details.	

HLTH471 **Women's Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Restriction: Must be in a major within the SPHL-Behavioral & Community Health department; or must be in a major within the ARHU-Women's Studies department. Cross-listed with WMST471. Credit only granted for: HLTH471 or WMST471.

The historical, physiological, psychological, and sociological mechanisms which contribute to women's health. Topics will include gynecological concerns and reproductive health; nutrition, exercise; violence; substance use/abuse; and the health of special populations.

For the winter, restriction is not in effect. Students of all majors are eligible to register and take this course.

WB11	M Reynolds	Seats (Total: 60)
	Class time/details on ELMs	ONLINE

HLTH489I **Field Laboratory Projects and Workshop; East Meets West: Contrasting Public Health Priorities, Pragmatics and Polemics in the U.S. and India**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A course designed to meet the needs of persons in the field with respect to workshop and research projects in special areas of knowledge not covered by regularly structured courses.

Contact department for information to register for this course.

HLTH498T **Special Topics in Health; Medical Terminology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest in areas not covered by regularly scheduled courses.

WB11	Katherine Sharp Class time/details on ELMs	Seats (Total: 125) ONLINE

HLTH688 **Special Problems in Health Education**

Credits: 1-6 Grading Method: Regular, Audit

I102	Cheryl Knott Contact instructor or department for details.	Seats (Total: 5)
I120	Bradley Boekeloo Contact instructor or department for details.	Seats (Total: 5)
I121	Kenneth Beck Contact instructor or department for details.	Seats (Total: 5)
I123	Mary Garza Contact instructor or department for details.	Seats (Total: 5)
I124	Elizabeth Aparicio Contact instructor or department for details.	Seats (Total: 5)
I126	Dina Borzekowski Contact instructor or department for details.	Seats (Total: 5)
I128	Barbara Curbow Contact instructor or department for details.	Seats (Total: 12)
I129	Donna Howard Contact instructor or department for details.	Seats (Total: 5)
I130	Craig Fryer Contact instructor or department for details.	Seats (Total: 5)
I131	James Butler Contact instructor or department for details.	Seats (Total: 5)
I132	Min Wang Contact instructor or department for details.	Seats (Total: 5)
I134	Amelia Arria Contact instructor or department for details.	Seats (Total: 5)

I136	Dina Borzekowski Contact instructor or department for details.	Seats (Total: 5)
I160	Evelyn King-Marshall Contact instructor or department for details.	Seats (Total: 5)
I180	Kerry Green Contact instructor or department for details.	Seats (Total: 5)

HLTH898 Pre-Candidacy Research

Credits: 1-8 Grading Method: Regular, Sat-Fail

I102	Cheryl Knott Contact instructor or department for details.	Seats (Total: 5)
I120	Bradley Boekeloo Contact instructor or department for details.	Seats (Total: 5)
I121	Min Wang Contact instructor or department for details.	Seats (Total: 5)
I123	James Butler Contact instructor or department for details.	Seats (Total: 5)
I126	Dina Borzekowski Contact instructor or department for details.	Seats (Total: 5)
I127	Faika Zanjani Contact instructor or department for details.	Seats (Total: 5)
I128	Barbara Curbow Contact instructor or department for details.	Seats (Total: 5)
I129	Donna Howard Contact instructor or department for details.	Seats (Total: 5)
I132	Craig Fryer Contact instructor or department for details.	Seats (Total: 5)
I134	Amelia Arria Contact instructor or department for details.	Seats (Total: 5)

I139	Juliette Christie Contact instructor or department for details.	Seats (Total: 5)
I140	Elizabeth Aparicio Contact instructor or department for details.	Seats (Total: 5)
I160	Evelyn King-Marshall Contact instructor or department for details.	Seats (Total: 5)
I170	Kerry Green Contact instructor or department for details.	Seats (Total: 5)
I180	Robert Gold Contact instructor or department for details.	Seats (Total: 5)
I192	Alice Horowitz Contact instructor or department for details.	Seats (Total: 5)

HLTH899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0103	Neil Sehgal Contact instructor or department for details.	Seats (Total: 10)
I121	Kenneth Beck Contact instructor or department for details.	Seats (Total: 5)
I128	Barbara Curbow Contact instructor or department for details.	Seats (Total: 5)
I139	Robert Feldman Contact instructor or department for details.	Seats (Total: 5)

IMMR Immigration Studies Winter 2020

IMMR200 **Introduction to Immigration and Migration Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduces concepts and theoretical interpretations about the causes of international migration; provides an historical overview of the main flows of immigration to the U.S.; analyzes economic, political, social, and cultural aspects that impact the immigrants' settlement process.

WB11	Robert Chiles	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INAG Institute of Applied Agriculture Winter 2020

INAG110 **Oral Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSOC

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

0102	Eric Dunning	Seats (Total: 12)
	MTuWThF 9:00am - 12:30pm	JUL 1105

INST Information Studies Winter 2020

INST309 **Independent Study in Information Science**

Credits: 1-3 Grading Method: Regular

Individual independent study of an aspect of information science, selected according to student interest and need in consultation with a member of the iSchool faculty. Repeatable to 6 credits if content differs.

0132	Bill Kules	Seats (Total: 4)
	Contact instructor or department for details.	

INST633 **Analyzing Social Networks and Social Media**

Credits: 3 Grading Method: Regular

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC708L or INST633. Formerly: LBSC708L.

Introduces students to the science and social science of network analysis. Through real world examples, including analysis of their own social networks, students will develop skills for describing and understanding the patterns and usage of services like Facebook, Twitter, YouTube, and others. Students will read classic and cutting edge articles and books about these topics and discuss their applicability to this new social media. The class will culminate with a capstone project in which students will apply the analysis methods they have learned to understanding a particular question about social networks and social media.

WB11	Jennifer Golbeck	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST670 **Introduction to Javascript Programming**

Credits: 1 Grading Method: Regular, Audit

Credit only granted for: INST728N and INST670. Formerly: INST728N.

Introduction to the fundamentals of Javascript programming. Basic components of all programming languages, including variables, types, data structures, and control flow, with a focus on leveraging Javascript libraries for more advanced functionality. No prior experience needed.

WB11	Jennifer Golbeck	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

INST671 **Introduction to Web Programming**

Credits: 1 Grading Method: Regular, Audit

Credit only granted for: INST728W or INST671. Formerly: INST728W.

Introduction to the fundamentals of designing and programming web sites. HTML programming extended by work with Cascading Style Sheets. Programming skills are complemented with fundamentals of design and usability. No prior programming experience needed.

WB11	Jennifer Golbeck	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

INST673 **Hands On Machine Learning with Weka**

Credits: 1 Grading Method: Regular, Audit

Recommended: It is recommended that students have some familiarity with programming prior to taking this course. Restriction: Permission of INFO-College of Information Studies.

Students will receive hands on experience with the open-source machine learning tool Weka. Topics covered will be classification, regression, basic algorithm types, how to get data into a format Weka can process, how to interpret results, and basic document classification. The class will meet online.

WB11	Jennifer Golbeck	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

INST709 **Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Intensive individual study, reading, or research in an area of specialized interest under faculty supervision. Registration limited to the advanced student with the approval of the advisor and of the faculty member involved.

0130	Richard Marciano	Seats (Total: 5)
	Contact instructor or department for details.	

INST729I **International Opportunities in Information Studies**

Credits: 3 Grading Method: Regular, Audit

Short term, experiential course offered in conjuction with the University's Study Abroad Office, to volunteer, complete a project, or conduct research in a library or information organization outside the U.S. Focus and location varies.

Contact department for information to register for this course.

INST799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

JOUR Journalism Winter 2020

JOUR175 **Media Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE, D General Education: DSSP, DVUP

Additional information: Not applicable toward journalism major.

An analysis of the information, values and underlying messages conveyed via television, newspapers, the internet, magazines, radio and film. Examines the accuracy of those messages and explores how media shape views of politics, culture and society.

This is a completely online course with both synchronous and asynchronous elements. Students are required to login at the time specified for the discussion section but additional work outside of this time is required as well.

WB11	Susan Moeller	Seats (Total: 18)
	Class time/details on ELMs	ONLINE

JOUR199 **Survey Apprenticeship**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

College-monitored experience in approved mass-communications organizations and industries.

I101	Adrianne Flynn	Seats (Total: 5)
	Contact instructor or department for details.	

JOUR289F **Beyond Facebook: How Social Media are Transforming Society, Culture, Business and Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE General Education: DSHU, SCIS

WB11	Shannon Scovel	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
WB12	Denitsa Yotova	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

JOUR398 **Independent Study**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual projects in journalism.

Contact department for information to register for this course.

JOUR458P **Special Topics in Journalism; Photography in Oaxaca**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

Contact department for information to register for this course.

JWST Jewish Studies Winter 2020

JWST219O **Jewish Language America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, DVCC

Cross-listed with: HEBR298O. Credit only granted for: JWST219O or HEBR298O.

Credit granted only for JWST219O or HEBR298O. Also offered as HEBR298O. Students will explore the history and current use of a variety of and dialects in the American Jewish community. They will analyze how language affects identity and relationships to the majority group, as well as within the cultural group. Taught in English.

WB11	Avital Karpman	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

KNES Kinesiology Winter 2020

KNES157N **Physical Education Activities: Coed; Weight Training (Beginning)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40 instructional materials fee.

0101	Samantha Snyder	Seats (Total: 30)	
	MTuWThF 10:00am - 12:00pm	SPH 0103	Lab

KNES161C **Physical Education Activities: Coed; Indoor Group Cycling (Intermediate)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40 instructional materials fee.

0101	Andrea Romeo	Seats (Total: 22)	
	MTuThF 10:00am - 12:15pm	RDG 0114	Lab

KNES287 **Sport and American Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB, D General Education: DSHS, DVUP

Sport will be related to such social problems as delinquency, segregation, collective behavior, and leisure; to social processes such as socialization, stratification, mobility, and social control; and to those familiar social institutions the family, the school, the church, the military, the economy, the polity, and the mass media.

WB11	David Andrews	Seats (Total: 75)
	Class time/details on ELMs	ONLINE

KNES289 **Topical Investigations**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES293 **History of Sport in America**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

CORE: SH

General Education: DSHS

The growth and development of sport in America. The transformation of sport within the perspective of American history, including class sport, professionalization, amateurism, and international involvement.

All sessions are taught on-line.

WB11	Eric Stone	Seats (Total: 90)
	Class time/details on ELMs	ONLINE

KNES342 **Sport, Commerce, and Culture in the Global Marketplace**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: KNES287. Credit only granted for: KNES389A or KNES342. Formerly: KNES389A.

The Sport, Commerce, and Culture in the Global Marketplace study abroad program is designed for students who are interested in the relationship between sport, culture, and the contemporary global economy.

Contact department for information to register for this course.

KNES350 **The Psychology of Sports & Exercise**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

WB11	J Carson Smith	Seats (Total: 75)
	Class time/details on ELMs	ONLINE

KNES385 **Motor Control and Learning**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within SPHL-Kinesiology department.

Physiological and cognitive bases for motor control and their applications to the acquisition of movement skills and understanding of movement disorders. Topics include: neurophysiology, motor control theory, sensory/perceptual processes, perception-action coupling, information processing, memory, attention, individual differences, motivation, practice organization and role of feedback.

Non-KNES majors should contact the instructor (kiemel@umd.edu) to request permission.

WB11	Tim Kiemel	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

KNES389 **Topical Investigations**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES389K **Topical Investigations; Kinesiology Internship**

(Perm req)

Credits: 3

Grading Method: Regular

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES389P **Topical Investigations; Strength and Conditioning of Athletes**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: KNES360 with a grade of C- or better. Dedicated to preparing students to teach and coach athletes in the area of strength and conditioning. In addition to addressing basic aspects of strength & conditioning, students learn basic biomechanics of movement, maximum strength development, sport-specific energy utilization, metabolic conditioning, athletic speed/agility/acceleration, explosive power nhancement, and the design of sport-specific training programs. Examples will be used to illustrate concepts that have the potential to impact all areas of kinesiology. The student will be instructed into how to teach any level athlete, youth to adult, individually or in large groups.

0101	Jo Zimmerman, Orsam Ahmed	Seats (Total: 35)
	MTuWThF 12:30pm - 3:30pm	SPH 0308

KNES462 **Neural Basis of Human Movement**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201, BSCI202, and KNES385; or permission of SPHL-Kinesiology department. Restriction: Must have earned a minimum of 75 credits.

An introduction to the neural substrates which underlie postural and volitional movement. Neuroanatomical and neurophysiological basis of motor functioning; past and present conceptualizations of motor control and coordination; movement disorders; and maturation of the neuromuscular system.

WB11	Rodolphe Gentili	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

KNES498 **Special Topics in Kinesiology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Topics of special interest in areas not covered by regularly scheduled courses.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES689 **Special Problems in Kinesiology**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

KNES799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

KNES899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

LARC Landscape Architecture Winter 2020

LARC151 **Urban Agriculture: Designing and Assessing Edible Landscapes**

Credits: 3 Grading Method: Regular General Education: DSSP, SCIS

Students will examine the growing development of urban agriculture and edible landscapes. Urban agriculture has seen a recent growth and interest in cities across the globe. From Paris to New York, from Baltimore to Detroit, urban agriculture is an emerging land use to address a variety of needs. Redevelopment, food deserts, community engagement and environmental justice are just some of the issues and topics that are connected to the recent growth of urban agriculture. This course will take a critical examination of urban agriculture's contribution to the food system, its input and outputs in the urban landscape, and the planning and design of urban agriculture and edible landscapes.

WB11	Amy Sametshaw, Eric Samet-Shaw	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

LARC160 **Introduction to Landscape Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU, DSSP

History, theory, philosophy and current practice of the profession of landscape architecture. Explores the interactive relationship between humans and their environment by examining people's perceptions of and changing attitude towards the landscape, as well as, an examination of how these are related to ecological and cultural influences.

WB11	Colleen Vacelet	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

LARC453 **Introduction to GIS and Hydrologic Modeling**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Introduction to Geographic Information Systems (GIS) and their application to hydrologic modeling. Basic GIS skills are used to manipulate and analyze spatial data to populate NRCS TR-55 hydrologic model for use in sizing constructed wetlands, bio-retention cells, and minor flood zones. No prior knowledge of GIS or hydrologic modeling is required. Stormwater and erosion control permitting as well as basic design principles for Maryland Environmental Site Design standards are introduced.

WB11	Christopher Ellis	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

LARC489N **Special Topics in Landscape Architecture; Culture and Earth: Transformation and Adaptation-New Zealand**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Credit according to time scheduled and organization of course. A lecture and/or studio course organized as an in-depth study of a selected specialization of landscape architecture not covered by existing courses.

Contact department for information to register for this course.

LARC489O **Special Topics in Landscape Architecture; Computer-Aided Design and Drafting (CADD): Urban Construction**

Credits: 3

Grading Method: Regular

Credit according to time scheduled and organization of course. A lecture and/or studio course organized as an in-depth study of a selected specialization of landscape architecture not covered by existing courses.

WB11	Christopher Ellis	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

LARC499 **Independent Studies in Landscape Architecture; Independent Studies in Landscape Architecture**

Credits: 1-4

Grading Method: Regular, Pass-Fail, Audit

Independent studies in landscape architecture including field, studio or library research under the direction of a faculty member.

Contact department for information to register for this course.

LARC699 **Independent Studies in Landscape and Architecture**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Individual Instruction course.

Contact department for information to register for this course.

LBSC Library Science Winter 2020

LBSC708T **Special Topics in Library and Information Science; Introduction to Genealogy**

Credits: 3 | Grading Method: Regular, Audit

A special topics course with content determined by individual instructors. For questions about the content of the course contact the College of Information Studies.

WB11	Mary Mannix	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

LGBT Lesbian Gay Bisexual Transgender Studies Winter 2020

LGBT327 **Lesbian, Gay, Bisexual, and Transgender Film and Video**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DSHU, DVUP

Restriction: Junior standing or higher. Cross-listed with: ENGL359F. Credit only granted for: LGBT327 or ENGL359F.

Comparative analysis of forms, themes, and the politics of representation in film and video by and/or about LGBT people.

Additional Note: Cross-listed with ENGL359F. Credit granted for LGBT327 orENGL359F.

WB11	James Goodwin	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LING Linguistics Winter 2020

LING200 **Introductory Linguistics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Credit only granted for: HESP120 or LING200. Additional information: Does not count toward the Linguistics major and does not fulfill prerequisite requirements for all upper-level courses.

An exploration of the nature of human language, designed for non-majors. Introduction to the basic concepts and methodology of modern linguistic analysis (sound systems, word formation, sentence structure). Additional topics may include: semantics, pragmatics, social aspects of language, dialects, language change, acquisition, writing systems, typology, language universals, comparison with other communication systems, etc.

WB11	Michelle Morrison	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

LING499 **Directed Studies in Linguistics**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING689 **Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Independent studies in grammatical theory.

Contact department for information to register for this course.

LING698 **Directed Study**

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

LING798 **Research Papers in Linguistics**

Credits: 1-6 Grading Method: Regular, Audit

Contact department for information to register for this course.

LING799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

LING889 **Directed Research**

Credits: 1-8 Grading Method: Regular, Audit

Contact department for information to register for this course.

LING896 **Research Paper in Minor Area**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LING888.

This course is designed to strengthen the students' ability to do research in a minor area of expertise, and to help them create a publishable piece. In addition, the course constitutes part of a set of requirements to advance to doctoral candidacy.

Contact department for information to register for this course.

LING898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

LING899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

MIEH Maryland Institute for Applied Environmental Health Winter 2020

MIEH400 **Introduction to Global Health**

Credits: 3 Grading Method: Regular General Education: DVUP

Prerequisite: Minimum grade of C- in MIEH300; and 1 course with a minimum grade of C- from (SPHL100, PHSC300). Restriction: Must be in the Public Health Science program or must have permission of the program director; and must have completed 60 credits. Credit only granted for: MIEH400 or SPHL498A. Formerly: SPHL498A.

Exploration of theoretical frameworks and practical perspectives on issues shaping the global health panorama. Determinants examined through: biological and epidemiological; social, cultural and economic; environmental and geographic; multi-section, legal and institutional perspectives with synopsis of how these issues are addressed by international and community organizations in developing countries.

HY11	Amir Sapkota	Seats (Total: 25)	
	Contact instructor or department for details. Class time/details on ELMs	ONLINE	
	This class will meet in person from 11am-2pm on January 2, 15, and 22 in SPH 0302.		

MIEH620 **Global Health Communication and Promotion**

Credits: 3 Grading Method: Regular, Audit

Recommended: MIEH605. Credit only granted for: SPHL620 or SPHL698C. Formerly: SPHL698C.

Explores the critical components in developing, implementing and evaluating health/population promotion and communication interventions. Emphasis is on theory application to a variety of cultural settings. Formative and quantitative research methods will be utilized.

GH01	Muhiuddin Haider	Seats (Total: 18)	
	MW 5:00pm - 7:00pm Class time/details on ELMs	SPH 0307 ONLINE	Discussion
	The class will meet online on January 2.		

MIEH698E **Special Topics in Environmental Health; Applied Environmental and Spatial Epidemiology Research**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Special topics in environmental health.

HY11	Robin Puett	Seats (Total: 15)	
	MTuWThF 10:00am - 1:00pm Class time/details on ELMs	SPH 2234CC ONLINE	
	Class meets in person January 13th-17th.		

MIEH786 **Capstone Project in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of SPHL-Maryland Institute for Applied Environmental Health.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

MIEH788 **Critical Readings in Environmental Health**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

In-depth examination and critical discussion of the current literature relevant to environmental health.

Contact department for information to register for this course.

MIEH789 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Individual reading and/or research under a specific faculty member in the department.

Contact department for information to register for this course.

MIEH799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

MIEH898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

0101	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0102	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0103	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0104	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0105	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0106	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0107	Lesliam Quiros Alcala Contact instructor or department for details.	Seats (Total: 5)

0108	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MIEH899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0101	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0102	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0103	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0104	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0105	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0106	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0107	Lesliam Quiros Alcala Contact instructor or department for details.	Seats (Total: 5)
0108	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MLAW MPower Undergraduate Law Programs Winter 2020

MLAW298V **Special Topics in Legal Studies; Law and Disorder at the Border**

(Perm req) Credits: 1 Grading Method: Regular

Substantive and experiential approaches to legal phenomena. Topics vary.

This course provides students with an experiential learning experience at the U.S. Mexico Border. The experience includes providing service, touring the border, visiting federal and immigration courts, detention facilities, and talking with residents, human rights experts, lawyers, activists and policy professionals. Students need to apply with MLAW programs. There will be two mandatory meetings prior to departure and one mandatory meeting once students return from the experience. Students will receive advanced notice of meeting dates. Contact the instructor or the department for more information about application and requirements. mlawprograms@umd.edu. In addition to tuition and the student services fee,students must pay a $250.00 course activities fee.

0101	Robert Koulish	Seats (Total: 15)
	Meets January 5, 2020 - January 12, 2020	
	Contact instructor or department for details.	

MSML Machine Learning Winter 2020

MSML601 **Probability and Statistics**

Credits: 3 Grading Method: Regular

Prerequisite: Undergraduate courses in calculus and basic linear algebra. Restriction: Must be in the Data Science Graduate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program; or the Master of Professional Studies in Machine Learning program. Cross-listed with: DATA601. Credit only granted for: DATA601 or MSML601.

Provides a solid understanding of the fundamental concepts of probability theory and statistics. The course covers the basic probabilistic concepts such as probability space, random variables and vectors, expectation, covariance, correlation, probability distribution functions, etc. Important classes of discrete and continuous random variables, their inter-relation, and relevance to applications are discussed. Conditional probabilities, the Bayes formula, and properties of jointly distributed random variables are covered. Limit theorems, which investigate the behavior of a sum of a large number of random variables, are discussed. The main concepts random processes are then introduced. The latter part of the course concerns the basic problems of mathematical statistics, in particular, point and interval estimation and hypothesis testing.

PCM1	Leonid Koralov	Seats (Total: 22)
	Meets November 25, 2019 - February 19, 2020	
	M 6:00pm - 9:30pm	CSI 1121
	Must be in Machine Learning Program. For permission to enroll, contact oes@umd.edu.	

MSML602 **Principles of Data Science**

Credits: 3 Grading Method: Regular

Restriction: Must be in the Data Science Post-Baccalaureate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program. Credit only granted for: CMSC641, DATA602, or MSML602.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of what data science means and systems and tools commonly used for data science and illustrates the principles of data science through several case studies.

PCM1	Prem Saggar	Seats (Total: 17)
	Meets November 25, 2019 - February 19, 2020	
	W 6:00pm - 9:30pm	CSI 1121
	Must be in Machine Learning Program. For permission to enroll, contact oes@umd.edu.	

MSML603 **Principles of Machine Learning**

Credits: 3 Grading Method: Regular

Prerequisite: Undergraduate courses in calculus and basic linear algebra. Restriction: Must be in the Data Science Post-Baccalaureate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program. Credit only granted for: CMSC643 DATA603, or MSML603.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCM1	Behtash Babadi	Seats (Total: 14)
	Meets November 25, 2019 - February 19, 2020	
	Tu 6:00pm - 9:30pm	Location: TBA
	Must be in Machine Learning Program. For permission to enroll, contact oes@umd.edu. Course meets in CSI 2118.	

MUSC School of Music Winter 2020

MUSC140 **Music Fundamentals I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSSP

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

Introductory theory course. Notation, scales, intervals, triads, rhythm, form and basic aural skills.

WB11	Quinn Dizon	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

MUSC205 **History of Popular Music, 1950-Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

A historical survey of rock music (blues, rock, soul, metal, rap, etc.) from circa 1950 to the present, with emphasis on popular music as music and popular music as social history.

WB11	Rachel Ruisard	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

MUSC220 **Selected Musical Cultures of the World**

Credits: 3 | Grading Method: Regular | CORE: HA, D | General Education: DSHU, DVUP

Credit only granted for: MUET220 or MUSC220. Formerly: MUET220.

A survey of selected musical cultures of the world, such as India, Japan, China, Indonesia, West Africa, Eastern Europe and the Near East.

WB11	Benjamin Jackson	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

NACS Neuroscience & Cognitive Science Winter 2020

NACS898 **Pre-Candidacy Research**

Credits: 1-8 | Grading Method: Regular, Sat-Fail

0108	Patrick Kanold	Seats (Total: 1)
	Contact instructor or department for details.	
0112	Matthew Roesch	Seats (Total: 1)
	Contact instructor or department for details.	

0115	Quentin Gaudry Contact instructor or department for details.	Seats (Total: 1)
0116	Alexander Shackman Contact instructor or department for details.	Seats (Total: 1)
0117	Matthew Goupell Contact instructor or department for details.	Seats (Total: 1)
0118	Behtash Babadi Contact instructor or department for details.	Seats (Total: 1)
0119	Joshua Singer Contact instructor or department for details.	Seats (Total: 1)
0121	Robert Slevc Contact instructor or department for details.	Seats (Total: 2)
0125	J Carson Smith Contact instructor or department for details.	Seats (Total: 1)
0135	Edward Bernat Contact instructor or department for details.	Seats (Total: 1)

NFSC Nutrition and Food Science Winter 2020

NFSC100 **Elements of Nutrition**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: LS | General Education: DSNS

Fundamentals of human nutrition. Nutrient requirements related to changing individual and family needs.

WB11	Margaret Udahogora Class time/details on ELMs	Seats (Total: 35) ONLINE

NFSC386 **Experiential Learning**

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Prerequisite: Permission of AGNR-Nutrition and Food Science department. Restriction: Junior standing or higher. Formerly: FDSC386 and NUTR386.

Contact department for information to register for this course.

NFSC498 **Selected Topics**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Contact department for information to register for this course.

NFSC699 **Problems in Nutrition and Food Science**

Credits: 1-4 Grading Method: Regular, Audit

Credit according to time scheduled and magnitude of problem. An experimental program on a topic other than the student's thesis problem will be conducted. Four credits shall be the maximum allowed toward an advanced degree.

Contact department for information to register for this course.

NFSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

First and second semesters. Credit in proportion to work done and results accomplished. Investigation in some phases of foodservice administration which may form the basis of a thesis. results in the form of a thesis.

Contact department for information to register for this course.

NFSC899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0106	Instructor: TBA	Seats (Total: 1)
	Contact instructor or department for details.	

PHIL Philosophy Winter 2020

PHIL100 **Introduction to Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

An introduction to the literature, problems, and methods of philosophy either through a study of some of the main figures in philosophic thought or through an examination of some of the central and recurring problems of philosophy.

WB11	Kalewold Kalewold	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

PHIL170 **Introduction to Logic**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: FSAR

Development of analytical reasoning skills through study of formal logics, reasoning systems, and fallacious inference patterns.

WB11	Leisa Schwab	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

PHIL203 **The Rights and Wrongs of Killing People**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Credit only granted for: PHIL209J or PHIL203. Formerly: PHIL209J.

Virtually everyone thinks it's permissible to kill people only in special circumstances. But why is killing usually wrong? Is it ever acceptable to kill an innocent human being intentionally? This course raises these and related questions and examines cases such as terrorism, suicide, abortion, euthanasia, the death penalty, war. Except for a brief discussion of animals, all the controversies considered deal with killing and causing death to human beings.

WB11	Quinn Harr	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

PHSC Public Health Science Winter 2020

PHSC401 **History of Public Health**

Credits: 3 | Grading Method: Regular

Restriction: Must be in Public Health Science program; and must have earned a minimum of 45 credits. Credit only granted for: PHSC401 or SPHL401. Formerly: SPHL401.

Emphasis is on the history of public health in the Western world from antiquity to the present. Also examines the influence of public health developments as they relate to the Western world as well as throughout diverse cultures and societies across the globe. Analysis focuses on the interaction among Western and non-Western cultures with respect to health issues, including science, policies, prevention and treatment.

WB11	John Calhoun	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

PHSC430 **Public Health in the City: Perspectives on Health in the Urban Environment**

Credits: 3 Grading Method: Regular General Education: DSHS, DVUP, SCIS

Prerequisite: Minimum grade of C- in BSCI202 and MIEH300. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC430 or SPHL498G. Formerly: SPHL498G.

Exposure to issues related to city habitation and the health of the public, including how the urban environment impacts the lives and health of city dwellers, including discussion of the social determinants of health. Students are encouraged to think about urban health and policy, and to question the current state of urban public health. Issues of race, class, and equality will be discussed throughout the course as they relate to each of these topics.

WB11	Kendall Bustad	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

PHYS Physics Winter 2020

PHYS499F **Special Problems in Physics; Quantum Boot Camp**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Prerequisites: MATH141 and either MATH240 or PHYS274, or equivalent course work. Also offered as ENEE489F, CMSC488A, and CHPH499F. Credit only granted for: PHYS499F, ENEE489F, CMSC488A or CHPH499F. Designed for computer science, engineering and mathematics majors. Introduces basic concepts and techniques widely used in quantum information science.

0101	Charles Clark	Seats (Total: 40)
	MTh 10:00am - 12:30pm	PSC 2136

PHYS899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular

0153	Michelle Girvan	Seats (Total: 1)
	Contact instructor or department for details.	

0156	Howard Milchberg Contact instructor or department for details.	Seats (Total: 1)
0162	Christopher Monroe Contact instructor or department for details.	Seats (Total: 1)
0197	Victor Galitski Contact instructor or department for details.	Seats (Total: 1)

PLCY Public Policy Winter 2020

PLCY309 **Internship in Political Institutions: State and Local**

Credits: 3-6

Grading Method: Regular, Pass-Fail

Offers students supervised internship placements in state and local political or public policy organizations.

0101	Nina Harris Contact instructor or department for details.	Seats (Total: 10)

PLCY359E **Contemporary Issues in Political Leadership and Participation; Ethiopia: Policy and Politics of Economic Development in Africa**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in political leadership and participation.

Contact department for information to register for this course.

PLCY359T **Contemporary Issues in Political Leadership and Participation; Morocco: Political and Social Development**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in political leadership and participation.

Contact department for information to register for this course.

PLCY388J **Special Topics in Public Policy; Engaging and Exploring the Complexities of Global Philanthropy and Nonprofit Leadership Irael and Jordan**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Contact department for information to register for this course.

PLCY388K **Special Topics in Public Policy; India: Education and Project Engagement with NGOs and Social Enterprises**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Contact department for information to register for this course.

PLCY688I **Topics in Public Policy; Engaging and Exploring the Complexities of Global Philanthropy and Nonprofit Leadership**

Credits: 3

Grading Method: Regular, Audit

Special topics in Public Policy.

Contact department for information to register for this course.

PLCY688J **Topics in Public Policy; Engaging and Exploring the Complexities of Global Philanthropy and Nonprofit Leadership Israel and Jordan**

Credits: 3

Grading Method: Regular, Audit

Special topics in Public Policy.

Contact department for information to register for this course.

PLCY688W **Topics in Public Policy; Ethiopia: Policy and Politics of Economic Development in Africa**

Credits: 3

Grading Method: Regular, Audit

Special topics in Public Policy.

Contact department for information to register for this course.

PLCY689I **Public Policy Topics; Social-Ecological Systems, Environmental Policy, and Sustainable Development in Indonesia**

Credits: 3

Grading Method: Regular, Audit

Special Topics in Public Policy.

WAIO	Thomas Hilde **Meets December 28, 2019 - January 21, 2020** Contact instructor or department for details.	Seats (Total: 0)

PLCY752 **Managing Differences:Resolving Conflict and Negotiating Agreements**

Credits: 3

Grading Method: Regular,
Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY752 or PUAF752. Formerly: PUAF752.

Enhances the student's negotiation and leadership skills for managing differences between individuals and groups. Students study the nature of conflict, learn how to handle two and multiparty conflicts, exerting leadership where there are no hierarchy leaders, and explore the impact of facilitators and mediators on the negotiating process. Blends skill building exercises and theory discussions about the behavior of groups and individuals in groups to understand negotiation dynamics.

Class will meet 9:00am-5:00pm on January 2, 7, 9, 14, 16 (with a half hour lunch break).

0101	Charles Field	Seats (Total: 25)
	MW 9:00am - 5:00pm	VMH 1207
	Meets 9:00am-5:00pm on January 2, 7, 9, 14, 16 (with a half hour lunch reak. PLCY major or permission of instructor.	

PLCY790 **Project Course**

Credits: 3

Grading Method: Regular,
Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY790 or PUAF790. Formerly: PUAF790.

Students work at a sponsoring government agency or private firm researching problem of interest to sponsor and relevant to concentration. Emphasis on problem definition, organizing information, and both oral and written presentation of results.

Contact department for information to register for this course.

PLCY798A **Readings in Public Policy**

Credits: 1-3

Grading Method: Regular,
Audit

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798I **Readings in Public Policy; India: Education and Project Engagement with NGOs and Social Enterprises**

Credits: 3

Grading Method: Regular,
Audit

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798T **Readings in Public Policy; Morocco: Political and Social Development**

Credits: 1-3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY898 **Pre-Candidacy Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

0131	Nathan Hultman Contact instructor or department for details.	Seats (Total: 5)
0241	Carol Graham Contact instructor or department for details.	Seats (Total: 5)

PLCY899 **Doctoral Dissertation Research**

Credits: 1-6 Grading Method: Regular

0131	Nathan Hultman Contact instructor or department for details.	Seats (Total: 5)

PSYC Psychology Winter 2020

PSYC200 **Statistical Methods in Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: PSYC100. And 1 course with a minimum grade of C- from (MATH107, MATH111, MATH120, MATH130, MATH136, MATH140, STAT100); or must have completed MATH220 with a minimum grade of C-. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, ECON321, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201. (These courses do not necessarily meet the same major requirements-check with your advisor to see which of these courses will count for your major).

A basic introduction to quantitative methods used in psychological research.

WB11	Tracy Tomlinson	Seats (Total: 54)
	Class time/details on ELMs	ONLINE

PSYC221 **Social Psychology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DSSP

Prerequisite: PSYC100.

The influence of social factors on the individual and on interpersonal behavior. Includes topics such as conformity, attitude change, person perception, interpersonal attraction, and group behavior.

WB11	Nadya Teneva	Seats (Total: 45)
	Class time/details on ELMs	ONLINE

PSYC334 **Psychology of Interpersonal Relationships**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

Research, theory and their practical applications pertaining to the development, maintenance and dissolution of human relationships. Processes critical to successful relating (e.g., communication, bargaining, conflict resolution), and issues associated with troubled dyadic relations with equal partners (e.g., jealousy, spouse abuse, divorce).

WB11	Dylan Selterman	Seats (Total: 31)
	Class time/details on ELMs	ONLINE

PSYC432 **Counseling Psychology: Theories, Research, and Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200.

Analysis of research and intervention strategies developed and used by counseling psychologists. Historical and current trends in content and methodology.

WB11	Nazish Salahuddin	Seats (Total: 31)
	Class time/details on ELMs	ONLINE

PSYC438I **Special Topics in Study Abroad IV; India: Risk and Resilience in the Face of Poverty**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC624 Adult Psychopathology

Credits: 3 Grading Method: Regular

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)). Credit only granted for: PSYC624 or PSYC719. Formerly: PSYC719.

Examines the scientific and clinical literature relevant to normal and pathological behavior in adults and associated nosological systems for categorizing psychopathology. Issues relevant to etiology, differential diagnosis, and treatment planning are also considered.

PCC1	Andrea Chisolm	Seats (Total: 40)
	Meets November 25, 2019 - February 19, 2020	
	Tu 6:00pm - 9:45pm	BPS 1140B
	Restricted to students in Clinical Psychological Science Program.	

PSYC625 Clinical Assessment: Psychometric Principles, Testing and Behavior

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of BSOS-Psychology department. Credit only granted for: PSYC625 or PSYC721. Formerly: PSYC721.

An examination of fundamental principles of psychological assessment; application of these principles to the development of evidence-based assessments of clinical conditions and associated behaviors; and application of evidence-based assessments to the evaluation and understanding of clinical conditions evaluated and treated in therapeutic settings.

PCC1	Christina Danko	Seats (Total: 40)
	Meets November 25, 2019 - February 19, 2020	
	Th 6:00pm - 9:45pm	BPS 1140B
	Restricted to students in Clinical Psychological Science Program.	

PSYC638 Externship in Professional Psychology

Credits: 1-3 Grading Method: Sat-Fail

Approved appointment as an extern in a mental health setting.

0101	Jonathan Mohr	Seats (Total: 15)
	Contact instructor or department for details.	

PSYC653 **The Business of Evaluation: Research Methods at Work**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PSYC652. Additional information: Course builds from work completed in PSYC 652. Students are also expected to commit to a two-term long project. Students will work with a non-profit organization or local business to ask and answer a business question for the organization. Students will conclude this project in PSYC 654.

Students will learn about the strengths and weaknesses of commonly employed research methods in business settings, including: longitudinal research, survey and interview (including focus groups) design, and sampling and weighting. Students will design and launch a research study that will answer a pressing business question.

PYP1	Nikita Arun	Seats (Total: 40)
	Meets November 25, 2019 - February 19, 2020	
	M 5:00pm - 8:30pm	Location: TBA
	Class time/details on ELMs	ONLINE
	Restricted to students in the MPS Industrial/Organizational Psychology program. Class meets in person on odd numbered weeks.	

PSYC732 **Selection and Classification Issues in Organizations**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PSYC603; and (PSYC602; or students who have taken courses with comparable content may contact the department). Or permission of instructor.

Consideration of societal, organizational and individual demands for appropriate use of individual differences in (primarily) initial placement of employees. Recruitment, and selection issues, the role of governmental regulations, and the role of individual factors in individual behavior are considered. Extensive coverage given to fundamental psycho-metric problems and the development of individual and organizational criteria of effectiveness.

PYP1	Kenneth Yusko **Meets November 25, 2019 - February 19, 2020** M 5:00pm - 8:30pm Class time/details on ELMs *Restricted to students in the MPS Industrial/Organizational Psychology program. Class meets in person on odd numbered weeks.*	Seats (Total: 40) Location: TBA ONLINE

PSYC798X **Graduate Seminar; Scientific Writing for Psychology**

Credits: 1 Grading Method: Regular, Audit

This course will consist of several lessons designed to help participants learn to write clearly, concisely, and gracefully. The course will be highly interactive: each lesson is organized around a single theme (e.g., how to convey emphasis) in which heuristics are presented and participants practice those heuristics in an anonymous chat room.

0101	Robert Kail **Meets January 13, 2020 - January 16, 2020** MTuWTh 1:00pm - 4:15pm	Seats (Total: 12) BPS 1140B

PSYC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

PSYC899 **Doctoral Dissertation Research**

Credits: 1-8 Grading Method: Regular, Sat-Fail

0101	Michele Gelfand Contact instructor or department for details.	Seats (Total: 5)
0102	Jude Cassidy Contact instructor or department for details.	Seats (Total: 5)

RUSS Russian Winter 2020

RUSS411 **Linguistic Analysis of Russian I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in RUSS301.

Elucidation of theoretical concepts of modern linguistics through the analysis of problematic concepts in the Russian linguistic system. Phonology and the syntax of the simple sentence.

WB11	Cynthia Martin	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

SLLC School of Languages, Literatures and Cultures — Winter 2020

SLLC368D **Special Topics in Film Studies I; Action, Adventure, and Spectacle Film in World cinema**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Content varies. Exploration of topics in film studies beyond national traditions, for example through the lens of theory, genre, auteurship, aesthetic movements in cinema, and/or comparative perspectives.

Crosslisted with FILM329D. Credit granted for SLLC368D or FILM329D. Critical study of some of the most important examples of action, adventure, and spectacle cinema from the international and transnational perspectives. Exploration of the historical, esthetic, generic, institutional, and political significance of these films.

WB11	Jason Kuo	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

SOCY Sociology — Winter 2020

SOCY100 **Introduction to Sociology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

The fundamental concepts and principles of sociology. Includes consideration of culture, patterns of social interaction, norms, values, social institutions, stratification, and social change.

WB11	Mary DeStefano	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

SOCY105 **Introduction to Contemporary Social Problems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

An examination of contemporary social problems through sociological perspectives; ways in which social problems are part of the organization of society; a detailed study of selected social problems including social conflict and social inequality.

WB11	Brian Connor	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

SOCY230 **Sociological Social Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Theoretical perspectives and their applications. Socialization through the life course, the self-concept, attitudes, emotion, attribution, interpersonal relations, group processes, deviance, and social change.

WB11	Amanda Dewey	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

SOCY424 **Sociology of Race Relations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department. Cross-listed with AAST424. Credit only granted for: AAST424 or SOCY424.

Analysis of race-related issues, with a primary focus on American society. The historical emergence, development, and institutionalization of racism; the impact of racism on its victims; and racially based conflict.

WB11	Simone Durham	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

SOCY699Z **Special Social Problems; Visualization and Programming in STATA**

Credits: 3 Grading Method: Regular, Audit

0101	Alan Neustadtl	Seats (Total: 20)
	Meets January 14, 2020 - January 21, 2020	
	MTuWThF 9:00am - 5:00pm	ASY 1101

SOCY899 **Doctoral Dissertation Research**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

SPAN Spanish Winter 2020

SPAN103 **Intensive Elementary Spanish**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Spanish. Credit only granted for: SPAN102 or SPAN103.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Charis Gozzo	Seats (Total: 25)
	MTuWThF 1:00pm - 4:30pm	JMZ 2123

SPAN169X **Special Topics in Study Abroad I; Elementary Spanish I**

Credits: 2-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169Y **Special Topics in Study Abroad I; Elementary Spanish II**

Credits: 2-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN203 **Intensive Intermediate Spanish**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: SPAN103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Spanish.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Roberto Katrandjiyski	Seats (Total: 25)
	MTuWThF 1:00pm - 4:30pm	JMZ 2117

0201	Olga Morozova	Seats (Total: 25)
	MTuWThF 1:00pm - 4:30pm	JMZ 1122

SPAN204 **Spanish Grammar Review**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: SPAN203; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to fluent/native speakers of Spanish.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

Contact department for information to register for this course.

SPAN225 **Cultures of the Contact Zones - Seville, Al-Andalus and the Atlantic World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO, D | General Education: DSHU, DVUP

Cross-listed with: HONR248E. Credit only granted for: HONR248E or SPAN225.

Content is broad enough to deal with issues of multiculturalism in Spain but also specific enough to center on the city of Seville and the Andalusion region.

Contact department for information to register for this course.

SPAN269I **Special Topics in Study Abroad II; Intermediate Spanish I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269V **Special Topics in Study Abroad II; Identity and Stereotypes in Latin America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN301 **Advanced Grammar and Composition I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in SPAN207.

Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical, and stylistic devices will be highlighted.

0101	Rosario Montero Navarro	Seats (Total: 25)
	MTuWTh 1:00pm - 4:30pm	JMZ 2207

SPAN302 **Advanced Grammar and Composition II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301.

Practice in and writing of different types of compositions and essays, including narrations, descriptions, and persuasive writing. Review of problematic syntactical structures.

Contact department for information to register for this course.

SPAN369O **Special Topics in Study Abroad III; Spanish Conversation & Oral Skills**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369W **Special Topics in Study Abroad III; Spanish Stylistics: Advanced Spanish Writing and Stylistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN399C **Independent Study in Spanish; Spanish Culture in the Convivencia Period**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Specific readings in literature or a translation project under the supervision of a faculty member of the department.

Contact department for information to register for this course.

SPAN401 **Advanced Composition I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN302; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN402 **Advanced Composition II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN401; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN448C **Special Topics in Latin American Civilization; Cuba: Critical Cultures in Contemporary Cuba. An Introduction to the Cuban Revolution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Intensive independent study of a selected topic related to Latin American civilization.

Contact department for information to register for this course.

SPAN448E **Ecuador: Andean Spaces-Traversing the Colonial City and the Natural World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Contact department for information to register for this course.

SPAN488C **Spanish-American Fiction; Cuba: Critical Cultures in Contemporary Cuba. An Introduction to the Cuban Revolution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Representative novels and/or short stories from the Wars of Independence to the present or close analysis of major contemporary works. Subject will be announced each time course is offered.

Contact department for information to register for this course.

SPAN699C **Independent Study in Spanish; Critical Cultures in Contemporary Cuba**

Credits: 3 Grading Method: Regular, Audit

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

SPAN699E **Independent Study in Spanish; Spain: Cultures of the Contact Zones: Seville, Al-Andalus and the Atlantic World**

Credits: 3 Grading Method: Regular, Audit

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

SPHL Public Health Winter 2020

SPHL612 **Research Ethics**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be a graduate student in the School of Public Health. Credit only granted for: EPIB641, KNES689Y or SPHL612. Formerly: EPIB641, KNES689Y.

Overview and discussion of ethical issues that face public health researchers.

HY11	Stephen Roth	Seats (Total: 25)
	F 9:00am - 12:00pm	SPH 0121
	Class time/details on ELMs	ONLINE

STAT Statistics and Probability Winter 2020

STAT689 **Research Interactions in Statistics**

Credits: 1-3 Grading Method: Regular, Audit

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

0101	Paul Smith	Seats (Total: 10)
	Contact instructor or department for details.	

STAT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-8

Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

THET Theatre Winter 2020

THET328I **Special Topics in Intermediate Theatre and Performance; New Vital Theatre**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics covered include: Intercultural Theatre, Performance Art, Puppetry, Solo Performance, or Theatrical Design.

New Vital Theatre is for aspiring theatre-makers who want to be on the vanguard of explosive, fresh, ground-breaking and inclusive theatre. We will read brand new plays from the U.S., England, Ireland and Canada; plays which challenge assumptions about storytelling, bring under-represented voices to the forefront, and reimagine how to interact with our audience in the ritual of live performance. You will analyze these plays as practitioners (playwrights, directors, actors, designers, dramaturgs), and will be challenged to create your own ideas for dreaming forward the art of theatre.Course work will include discussion boards, creative writing exercises and analytical, and you can do the work on your own schedule. Our class vocabulary will be centered around the ideas laid forward by the new, industry-shaking book Theatre of the Unimpressed by Jordan Tannahil.

WB11	Jennifer Newsham	Seats (Total: 12)
	Class time/details on ELMs	ONLINE

THET669 **Independent Study; Independent Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

0101	Jared Mezzocchi	Seats (Total: 5)
	Contact instructor or department for details.	
0102	Mikhail Kachman	Seats (Total: 5)
	Contact instructor or department for details.	

THET669K **Independent Study; Professional Development in Dance and Theatre**

Credits: 1

Grading Method: Regular, Audit

Cross-listed with DANC689F. Credit only granted for DANC689F or THET669K.

HY11	Maura Keefe W 10:00am - 11:45am Class time/details on ELMs	Seats (Total: 12) PAC 1924 ONLINE

THET669P **Independent Study; Photoshop**

Credits: 1-3 Grading Method: Regular, Audit

0101	Daniel Conway MTuW 9:00am - 1:40pm	Seats (Total: 10) PAC 2727

THET669V **Independent Study; Visionary Collaboration**

Credits: 2-3 Grading Method: Regular, Audit

What's the difference between a routine production and a truly visionary one? Where does "vision" come from, and what kinds of collaborations and artistic processes can lead to visionary results on stage? In this graduate level seminar -- intended for advanced designers, directors, playwrights, and actors -- participants will gain hand-on practice with a number of key concepts that provide a framework for collaboration among all the members of a creative team. We will then analyze a number of visionary productions (on video) from both the United States and Europe, and learn about the collaborative processes that led to them. Finally, small teams will be formed to select their own projects and engage in their own visionary collaborations.

0101	Howard Shalwitz MTuThF 12:00pm - 4:00pm	Seats (Total: 15) PAC 1815

THET788 **Master's Tutorial**

Credits: 1-6 Grading Method: Regular, Audit

Collaboration with a faculty member on joint creative and artistic projects.

0101	Helen Huang Contact instructor or department for details.	Seats (Total: 3)

THET789 **Master's Practicum**

Credits: 1-6 Grading Method: Regular, Audit

Participation in creative and artistic activities with professional level theatrical organizations.

0101	Helen Huang	Seats (Total: 3)
	Contact instructor or department for details.	

THET799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

THET889 **Doctoral Tutorial in Theatre**

(Perm req)

Credits: 1-6 Grading Method: Regular

Individual research in theatre.

0101	Faedra Carpenter	Seats (Total: 3)
	Contact instructor or department for details.	
0102	Franklin Hildy	Seats (Total: 5)
	Contact instructor or department for details.	

TLPL Teaching and Learning, Policy and Leadership — Winter 2020

TLPL444 **English Grammar Pedagogy for Teachers of English Language Learners**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCI437 or TLPL444. Formerly: EDCI437.

Methods of teaching English grammar to English language learners. The role of teaching grammar. Effective methods and techniques for incorporating grammar in other communication activities.

WB11	Kellie Rolstad	Seats (Total: 8)
	Class time/details on ELMs	ONLINE

TLPL453 **Life in Two Languages: Understanding Bilingual Communities and Individuals**

Credits: 3 Grading Method: Regular General Education: DSHS, DVUP

Overview of society and individual multilingualism. Topics include diglossia, language shift, codeswitching, bilingual first language acquisition, language attrition, dual language education policy and practice.

WB11	Jeff MacSwan	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

TLPL462 **Reading in the Secondary School**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Middle School Education; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Mathematics; Secondary Educ: Foreign Languages; Secondary Educ: Social Studies; Secondary Educ: Art) ; and permission of department required for post-baccalaureate students. Credit only granted for: EDCI463 or TLPL462. Formerly: EDCI463.

Provides secondary school teachers with understanding the need for and approaches to teaching students to read and learn from content area texts.

0101	Wayne Slater	Seats (Total: 20)
	MTuWThF 9:00am - 12:00pm	EDU 2119

TLPL666 **English Grammar for Teachers of English to Speakers of Other Languages**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI635 or TLPL666. Formerly: EDCI635.

English grammar and methods of teaching grammar for graduate, prospective and current teachers of English to speakers of other languages. Analysis of the major grammatical structures of American English. Discussion of the role of teaching grammar, and effective classroom methods and techniques for the English as a second/foreign language classroom.

WB11	Kellie Rolstad	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

TLPL788O **Special Topics in Education; Cultural Encounter, Identity, and Experience in Education**

Credits: 3 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

HY11	Beth Cohen MW 5:00pm - 8:00pm Class time/details on ELMs	Seats (Total: 12) EDU 2101 ONLINE

TLPL798 **Special Problems in Education**

Credits: 1-6 Grading Method: Regular, Audit

Exploration of current problems in teaching, learning, policy and leadership. Available only to master's or doctoral candidates under the direction of their advisors.

Contact department for information to register for this course.

TLPL888 **Apprenticeship in Education**

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

TLPL889 **Internship in Education**

Credits: 3-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

I119	Lawrence Clark Contact instructor or department for details.	Seats (Total: 5)
I121	Anita Sanyal Contact instructor or department for details.	Seats (Total: 5)
I122	Rossina Liu Contact instructor or department for details.	Seats (Total: 5)

TLPL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

0105	David Weintrop Contact instructor or department for details.	Seats (Total: 5)
0106	Daniel Levin Contact instructor or department for details.	Seats (Total: 5)
0107	James McGinnis Contact instructor or department for details.	Seats (Total: 5)
0108	Margaret Walker Contact instructor or department for details.	Seats (Total: 5)
0109	Claudia Galindo Contact instructor or department for details.	Seats (Total: 5)
0111	Janet Walkoe Contact instructor or department for details.	Seats (Total: 5)
0112	Andrew Brantlinger Contact instructor or department for details.	Seats (Total: 5)
0113	Daniel Chazan Contact instructor or department for details.	Seats (Total: 5)
I104	Campbell Scribner Contact instructor or department for details.	Seats (Total: 5)
I109	Claudia Galindo Contact instructor or department for details.	Seats (Total: 5)
I121	Anita Sanyal Contact instructor or department for details.	Seats (Total: 5)
I122	Rossina Liu Contact instructor or department for details.	Seats (Total: 5)

UNIV University Courses Winter 2020

UNIV099 **Internship Seminar**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Complements students' supervised work experiences. Open to all majors; all class levels. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

Restriction: Must have earned a minimum cumulative GPA of 2.0 (undergraduates) or 3.0 (graduate students); and Permission of the Career Center; and permission of instructor.

I101	Trisha Hongcharti, Erica Ely	Seats (Total: 10)
	Contact instructor or department for details.	

URSP Urban Studies and Planning Winter 2020

URSP688E **Recent Developments in Urban Studies; Zoning and Land Use Plan Implementation**

Credits: 3 Grading Method: Regular, Audit

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

An introduction to zoning and its relationship to land use planning, placing emphasis on the legal context that shapes zoning practice, particularly in the state of Maryland is provided. Additionally, addresses terminology, legal context, zoning ordinance interpretation, the role of various constituencies in the zoning process, and the relationship between the zoning ordinance and the comprehensive plan. It will also feature exercises and applied projects designed to convey course concepts through experiential learning.

0101	Kathleen Reilly	Seats (Total: 20)
	MTuWTh 4:00pm - 7:20pm	ARC 1101

URSP688K **Recent Developments in Urban Studies; Urban Design Software**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

HY11	Louis Thomas	Seats (Total: 20)
	MTuWTh 7:00pm - 10:00pm	ARC 0111
	Class time/details on ELMs	ONLINE

URSP788 **Independent Study in Urban Studies and Planning**

Credits: 1-3 Grading Method: Regular, Audit

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

USLT Latina/o Studies Winter 2020

USLT498C **US Latina/o Studies: Special Topics; Race and Nation in U.S. Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Specific content to be announced when courses are offered.

WB11	Robert Chester	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

WMST Women's Studies Winter 2020

WMST298D **Women's Bodies in Contention**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA, D General Education: DSHS, DVUP, SCIS

WB11	Sydney Lewis	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

WMST326 **Biology of Reproduction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI170 and BSCI171; or BSCI105; or permission of ARHU-Women's Studies department; or permission of CMNS-Biological Sciences UG Program. Cross-listed with BSCI342. Credit only granted for: BSCI342 or WMST326.

The biology of the reproductive system with emphasis on mammals and, in particular, on human reproduction. Hormone actions, sperm production, ovulation, sexual differentiation, sexual behavior, contraception, pregnancy, lactation, maternal behavior and menopause.

WB11	Justicia Opoku-Edusei	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

WMST469T **Study Abroad Special Topics IV; Gender, Sexuality and Globalization: Transnational Feminisms and the Anglophone Caribbean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.